MASTER IN FINANCE

HEINEKEN N.V.

COMPANY REPORT

CONSUMER GOODS – ALCOHOLIC BEVERAGES

MAY 2020

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A Taste of Return in the Brewery

The undervaluation of Heineken N.V.

- Revenues growth for the **FY2020** is expected to be **negative** due to the **COVID-19 impact** on the economy and the lockdown effects. However, sales are expected to recover by **FY2021** and return to its expected growth rates in every region. With revenues registering a growth rate between 2.20% and 3.35% for the 2021 – 2030 period. Overall, the economy is expected to recover well from the COVID-19 impact and companies will return to its normal functioning by 2021.

- **Trend towards premium and craft beer in Europe.** The European market is experiencing a high differentiation between brands of beers. In order to accommodate this demand, Heineken is creating and buying craft beer brands. This will push prices up and therefore increase Heineken's revenues and margins.

- **Positioned for growth in Americas.** Between 2015 and 2019 the consolidated beer volume grew at a CAGR of 8.86%. The market volume is expected to have a lower CAGR, 0.5%, for the forecasted period, yet market share is expected to increase and ultimately this will become the largest Heineken's market.

- **The recommendation for the stock is Buy**, given that the target price of 91.57€ is above the price of 76.6€, corresponding to a return of 19.54% as of 21st May 2020.

Company description

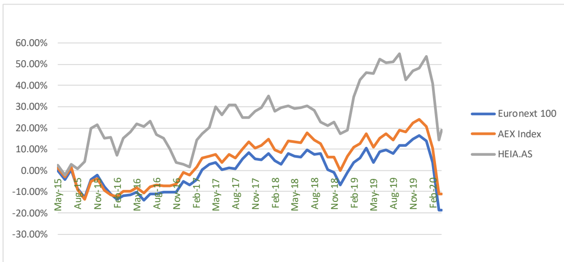
Heineken N.V. is involved in the brewing and selling of beer and cider. The company operates in more than 190 countries and owns more than 300 beer brands. Currently, the company is the 2nd largest brewer in the world. The company was founded in 1864 by Gerard Heineken and is part of the Dutch stock market index, AEX.

Recommendation:	**BUY**
Price Target FY20:	**91.57 €**
Price (as of 21-May-20)	**76.60 €**

Reuters: HEIN.AS, Bloomberg: HEIA.NA

52-week range (€)	68.82-105.00
Market Cap (€b)	44.069
Outstanding Shares (m)	576

Source: Yahoo Finance



Source: Yahoo Finance

(Values in € millions)	2019	2020E	2021E
Revenues	23892	16730	24893
EBITDA	5467	2524	6016
NOPLAT	2897	595	3142
Net Profit	2374	26	2607
EPS	4.12	0.63	5.11
Net Debt	15485	17427	16010
ROIC	9.93%	1.98%	10%

Source: Heineken Annual Report; Analyst Estimates

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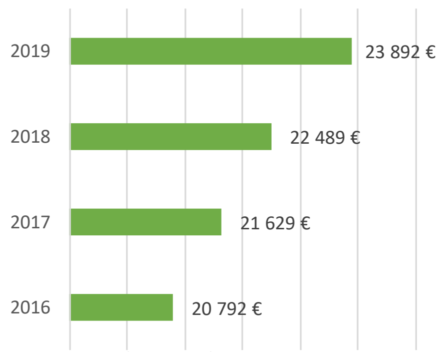
Company Overview

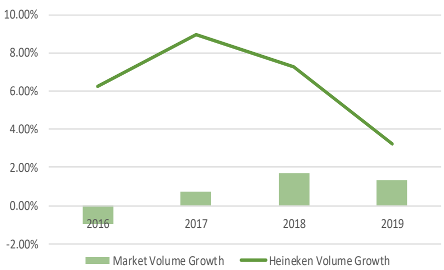
Company Description

Exhibit 1: Heineken's net revenue



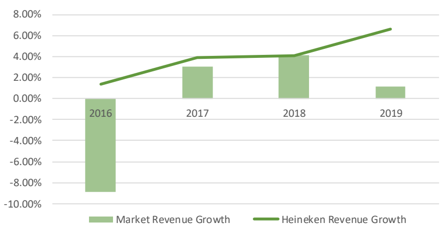
Source: Heineken annual reports

Exhibit 2: Growth of Beer Volume



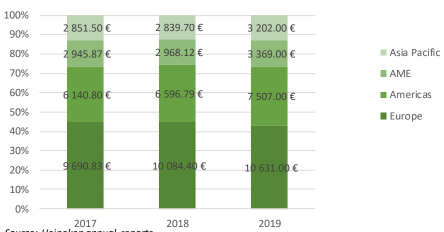
Source: Heineken annual reports and Euromonitor

Exhibit 3: Growth of Beer Revenues



Source: Heineken annual reports and Euromonitor

Exhibit 4: Heineken Revenues (million euros)



Source: Heineken annual reports

Founded in 1864 by Gerard Adriaan Heineken in Amsterdam, Heineken is currently the 2nd largest beer brewer in the World, only surpassed by AB InBev and owns more than 300 brands.

By 2019 the company employed about 85,853 full-time employees and reported a net revenue of 23,892 million euros, growing 6.24% in comparison with the previous year. This growth in revenues was mainly driven by a consumption growth in the Americas Market where Heineken has been consolidating its position not only by organic growth, but also by an M&A strategy: buying Kirin's operations in Brazil by 700 million dollars in 2017 and entering the Ecuadorian beer market in 2019 with the acquisition of *Biela Ecuador*.

When looking at a wider period range (2015 – 2019), Heineken registered annual growth rates (CAGR of 5.09%) of beer volume above the market (CAGR of 0.55% for the same period). Revenue growth registered a CAGR of -0.23% in the market, while Heineken registered a revenue growth of 3.17%. This translates in an aggressive growth strategy adopted by Heineken trough the reduction of prices in order to have higher market shares.

The company classifies its operations into 4 segments: Europe; Americas; Africa, the Middle East and Eastern Europe; Asia Pacific. The Europe segment represents almost half of the revenues, 43% of the total revenues by 2019. Following, there is the Americas segment that represents 30% of the revenues. Both markets are considered mature markets, yet while in Europe Heineken's market share has been steady, in the Americas market Heineken has been consolidating its position mainly through acquisitions.

The Asia Pacific Market is the biggest market, however it is the one where Heineken has the lowest market share, about 4.79% in 2019.

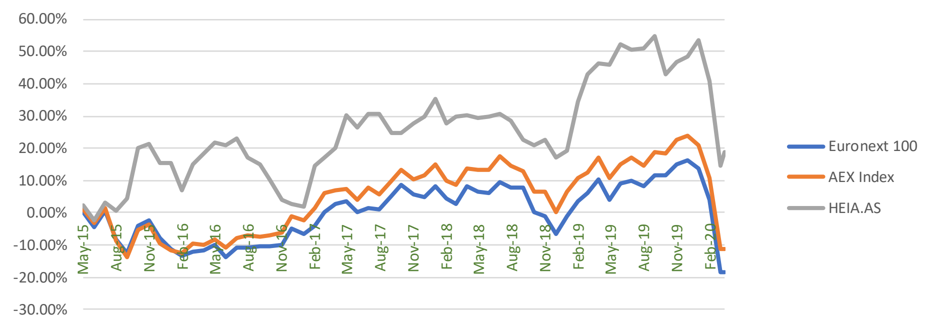
Stock Return

Heineken NV is traded as HEIA in the Euronext, being part of the Euronext 100 index that includes the 100 largest companies in Europe and of the AEX index that is composed of the maximum of 25 of the most frequently traded securities.

Heineken's Stock outperformed both the AEX Index and the Euronext 100 in the period studied (from April 2015 to March 2020), mainly due to the management decisions, such as the expansion to Latin America and the investment in craft and premium beer, which led to the growth in revenues in Heineken, the main driver of value in the company.

On exhibit 5 it is possible to see that the return of the indexes decreased significantly. This decrease is explained by the effects of the COVID-19 in the economy and consequently in the performance of the companies. It is expected that consumption and production will decrease between 1/4 to 1/2 due to the quarantine and the direct effects of the virus. Additionally, it is possible to see that Heineken's stock return follows the same pattern as both indexes.

Exhibit 5: Heineken's Stock Performance against Euronext 100 and AEX Index



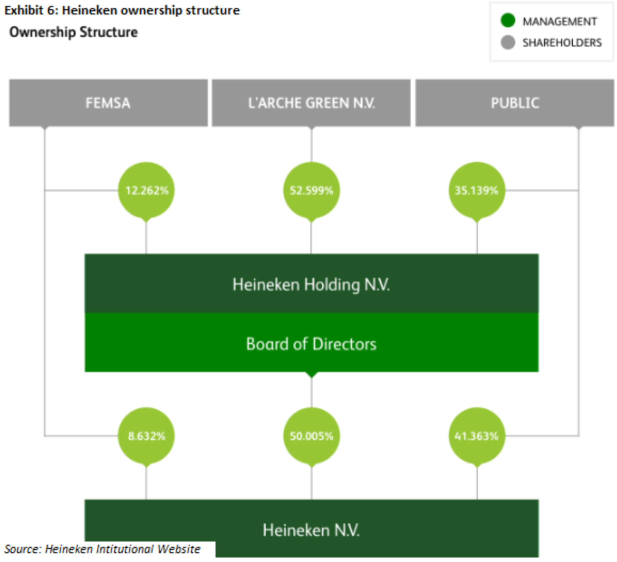
Source: Yahoo Finance

Shareholder Structure

Heineken is a public company since the 1939, however the Heineken family is still responsible for the decisions undertaken in the company through a complex ownership structure.

As it is seen in the ownership structure tree at the bottom, Heineken N.V. is held 50.005% by the Heineken Holding N.V. which is held 52.599% by L'Arche Green N.V. L'Arche Green N.V. is owned 88.86% by the Heineken Family and consequently it is the Heineken family that has the main voting power and therefore the main decisions are undertaken by the Heineken family.

Exhibit 6: Heineken ownership structure

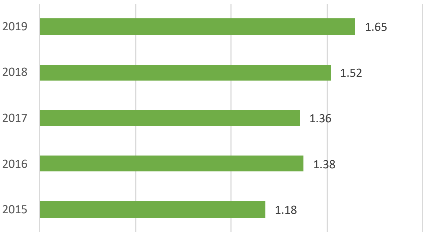


Source: Heineken Intitutional Website

41.363% of the shares are held by public shareholders and held in Treasury. The free float of shares in % is 40.31%, so the rest of the shares are held in treasury.

The influence of the Heineken family may have a negative impact in the value of the company as the public shareholders will never have any impact in major decisions in the company and corporate governance issues may arise. Though, according to the study *the five attributes of enduring family business* from *Mckinsey* businesses that are held by families have a long-term outlook of the businesses. This will lead to decisions that look more for the future and therefore sustain the business and yield a higher ROIC, on the other hand businesses that are held by institutional investors and managed by other shareholders decisions are taken into account the short-term returns at the expense of long-term company health.

Exhibit 7: Heineken's Dividend



Source: Yahoo Finance

Heineken N.V. dividend policy is to pay a ratio of 30% to 40% of full net profit (before extraordinary items and amortization). Comparing 2015 data with 2019, Heineken was able to increase its dividend from 1.18 per share (2015) to 1.68 per share (2019) mainly due to an increase in the profit attributable to the company. The dividend policy of Heineken N.V. intends to preserve the independence of the company, to maintain a healthy financial structure and to retain enough earnings in order to grow the business both organically and through acquisitions. For this reason, Heineken has a variable dividend that relies on the results. Furthermore, by having a dividend that has been growing Heineken N.V. gives positive signalling to investors, indicating the company is financially healthy. For 2020 Heineken is expected to not distribute dividends as many companies due to the COVID-19 impact.

Business Situation

Exhibit 8: Heineken Market Share per region (2019)	
Europe	19.16%
Americas	14.50%
Africa, Middle East & Eastern Europe	18.89%
Asia Pacific	4.79%

Source: Company Reports and Kirin Holdings Reports

Exhibit 9: CAGR per Region (2015 - 2019)	
Europe	0.70%
Americas	7.71%
Africa, Middle East and Eastern Europe	0.57%
Asia Pacific	5.14%

Source: Heineken annual report

In order to better understand the company situation and the competition environment a business situation framework was used in order to get the company position assessment in each of its business segments.

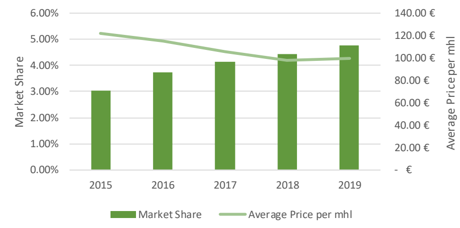
Heineken divides its segments in 4 regions: Europe; Americas; Africa, Middle East and Eastern Europe; Asia Pacific.

The company situation assessment was separated in 4 main buildings blocks: Customer; Company; Competition; Macroeconomic Outlook. “Company” was analysed in the previous section so this section focusses on analysing each of the other 3 building blocks in each region. Finally, a conclusion was drawn about the beer and cider market, its competition and how Heineken is positioned in this market.

The segments that reported the highest growth since 2015 were Americas with a CAGR of 7.71% and Asia Pacific with a CAGR of 5.14%.

Asia Pacific

Exhibit 10: Asia Pacific - Market Share and Average Price per mhl

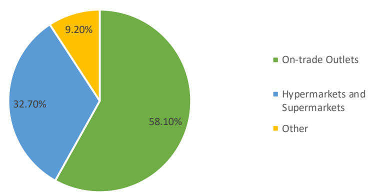


Source: Heineken Report and Kirin Holdings

Asia Pacific is the World's largest beer market in terms of volume, representing 34.3% of consumption worldwide. Heineken operates in 19 countries, controls 45 breweries and owns more than 50 brands in the region. From the 4 regions where Heineken operates, this is the less influent for the company. On the other hand, the region delivered high growth in 2019, mainly because of the acquisition of *China Resources Beer*.

Customer

Exhibit 11: Asia Pacifc Sales by establishment

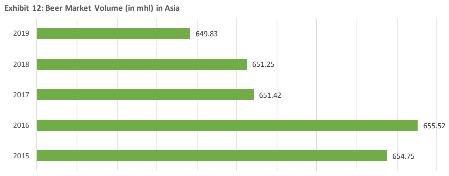


Source: Marketline

As it is seen in Exhibit 10 about the Asia Pacific market segment, there is a pattern of decrease in price per million of hectolitre (mhl) of beer that is sold by Heineken since 2015. This resulted in an increase of the Market Share. It is possible to say that beer customers in this segment are sensible to changes in price of the beer.

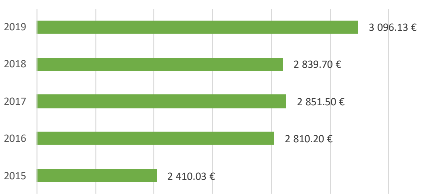
When it comes to customer concentration and power, they have low bargaining power. On one hand, there are low-switching costs of one supplier to other, on the other hand 58.1% of the sales are to on-trade outlets (establishments like pubs) and because of that, buyers have a small size. Furthermore, buyers must stock a wide variety of beers, something that adds value to Heineken bargaining power.

Exhibit 12: Beer Market Volume (in mhl) in Asia



Source: Kirin Holdings

Exhibit 13: Asia Pacific Revenues in million €



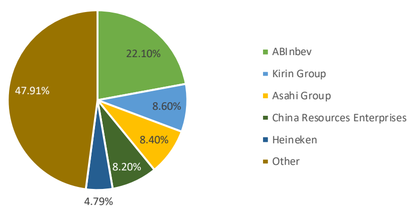
Source: Company Report

Most of the beer consumption in this region is driven by China that represents around 60% of the market in Asia Pacific. The beer consumed in this country is expected to remain flat, while the value in sales is expected to increase mainly due to the demand for high-end beer. On other regions, such as Japan, beer consumption is expected to decrease. All in all, it is expected that the beer market will have a decrease in terms of volume.

Competition

In the competition chapter, one should highlight the fragmentation of the market, this is, there are many small players in the market. The key strategies adopted by the companies include product innovation, expansion, and strategic partnerships to attain competitive advantage in the market. This translates in higher expenditure in R&D, additionally it is expected that the market will be sensible to better products and consumers are willing to pay more for a better product.

Exhibit 14: Market Share in Asia Pacific beer market



Source: Marketline

The degree of competition in this market is strong, being the 4 major companies ABInbev, Kirin Group, Asahi Group and China Resources Enterprises. Together, they control 47.2% of the market.

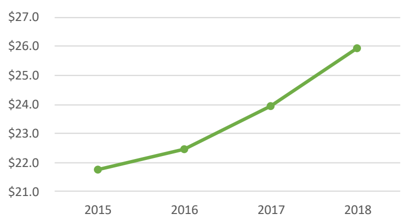
The market share held by Heineken during the 2015-2019 has never reached a value superior to 5%, however it has been increasing in the studied period. This increase was particularly significant in the 2018-2019 period mainly due to the acquisition of a 40% stake of China Resources Beer in 03 August 2018 for € 2.68 billion. The rationale behind the deal was because of the growing middle-class with tastes for premium beer, something that Heineken could offer and at the same time CR Beer had the best route-to-market network, a wide brewery footprint and a deep understanding of the Chinese market.

The barriers to entry in the Asian brewery market are high because of the large investment in production equipment, also producers may need to distribute their beer through retail channels that may have bargaining power and push the beer prices down. Because of that, economies of scale per region are significant.

The competitive landscape is expected to change, since Heineken will increase its market share in the following years, while other brewers will have lower market shares. Still, most of the market will be comprised of small and local breweries which may lead to more deals and acquisitions.

Macroeconomic Outlook

Exhibit 15: East Asia and Pacific - GDP (In Trillions)



Source: World Bank

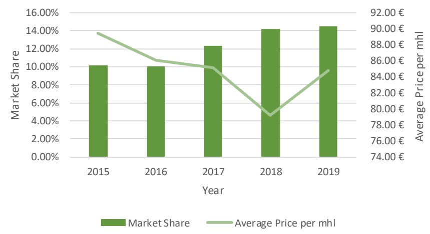
In the period studied (2015 – 2018) the Asia Pacific region economy has been growing at a CAGR of 4.49% and it was expected to grow at around 5% per year from 2019 to 2024 according to IMF. This growth would be sustained mainly from a growth in the middle-class in Chinese population. According to a *Mckinsey* study, 76% of China's urban population will be considered middle-class by 2022. This increase in the middle-class will lead to an increase in consumer spending which ultimately increases the beer market volume, that was expected to grow at a CAGR of 1.1% according to MarketLine. However, after the COVID-19 outbreak there will be a fall of 14% in industrial production and retail sales will fall by 21%. As a result, the region's average growth rate for 2020 will be 2.7% (according to S&P).

The COVID-19 will have an estimated cost of € 580 million for Asia-Pacific economies. This cost covers the entire period from the first quarter of 2020 to mid-2021, when the economy is expected to return to normal functioning and have the expected growth rates of 5%.

Americas

Americas is the world's 2nd largest beer market, accounting for 31.16% of total beer consumed worldwide. Heineken is present in 9 countries, operating 19 breweries and 8 joint venture breweries. The region delivered double-digit growth for Heineken in terms of revenues. Additionally, Heineken occupies the 3rd place in the competitive landscape.

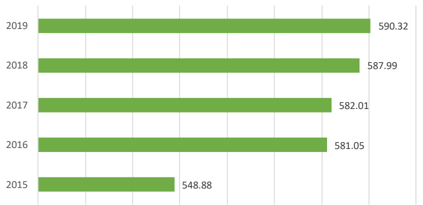
Exhibit 16: Americas - Market Share and Average Price per mhl



Customer

Americas is the largest Heineken's market, accounting for 35.5% of total Heineken's beer consumed. The Americas market is the market that registered the greatest growth in revenues with a CAGR of 7.71%. This growth was mainly driven by a growth in the market share with an expansion of market volume, mainly in South America. Market share in Americas grew from 10.2% in 2015 to 14.5% in 2019, furthermore the market volume grew from 548.88 mhl to 590.32 mhl in the 2015-2019 period.

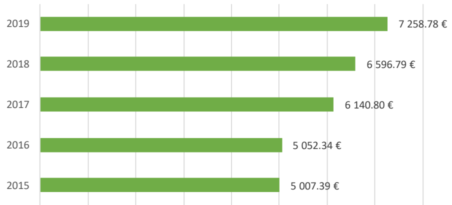
Exhibit 17: Beer Market Volume in Americas



Source: Kirin Holdings

The Americas market can be divided in two subgroups: North America and South America. North America comprises two mature markets: U.S and Canada and one emerging market: Mexico. The South America group is an emerging market, comprised mostly of in development countries, which one should highlight Brazil, that is the largest Heineken (brand) market in terms of volume.

Exhibit 18: Americas Revenues in million €



Source: Heineken Report

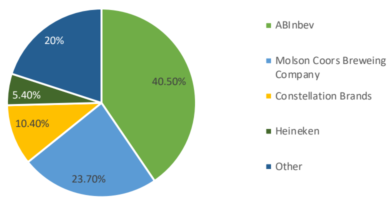
In the North America market, 54.3% of sales are to on-trade outlets that have a small size, because of that Heineken has a high bargaining power and can push prices up, additionally major buyers (this is supermarkets and hypermarkets) need to offer a wide range of beers to accommodate consumer preferences. Because of this buyer power is accessed as low and Heineken can push the prices of its beer up. The buyer power in North America is low-to-moderate, mainly due to the size of the breweries which gives them bargaining power, that are slightly offset by low switching costs that retailers have.

The South America market is composed of emerging markets, such as Brazil and Argentina. In 2016 60% of sales accounted to on-trade outlets and the per capita beer consumption accounted for 61 liters. With this, one can imply that buyers bargaining power is low and Heineken is able to push beer prices up.

Due to the recession in South America and the liberalization of recreational cannabis in North America, one can imply that the growth in this region will decrease to a CAGR of 0.5% per year in terms of market volume while the price is expected to remain stable as of the last year's price.

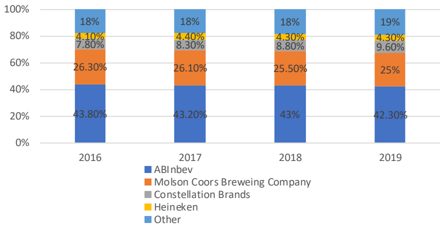
Competition

Exhibit 20: Market Share in North America beer market



Source: *Marketline*

Exhibit 21: Market Share Evolution in North America

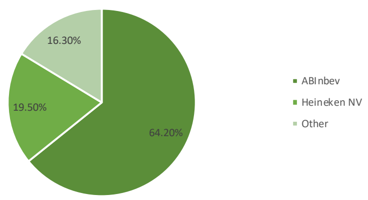


Source: *Euromonitor*

The North America market is fairly consolidated by the top four players: ABInbev, Molson Coors Brewing Company, Constellation Brands and Heineken. Together they control 80% of the North America market.

Regarding the competitive landscape one should highlight the reduction in small and local brewers market share, while Constellation brands has been increasing its market share reaching a value of 9.6% by 2019. This growth in market share was mainly due to M&A and one should highlight the acquisitions completed in 2018 that were the acquisition of three small breweries and let to the growth in market share by 2019. Besides Constellation Brands, the other companies that operate in the North America market have shown steady market shares and this the expected for the future in this market.

Exhibit 22: Market Share in Latin America beer market

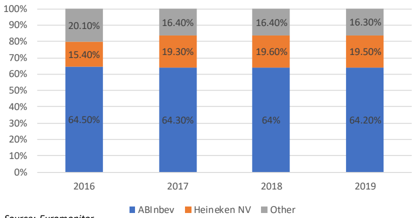


Source: *Euromonitor*

The South American market is the one that registered the highest growth in the last years, and in most countries the market is duopolistic, dominated by two big players: ABInBev and Heineken. The trend on this market is towards a consolidation strategy adopted by Heineken while ABInBev is going to keep its market share, so one can deduce that Heineken will increase its market share by acquiring small local brewers in South America and expanding its operations.

Macroeconomic Outlook

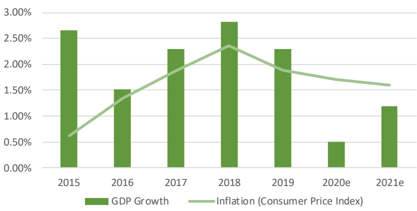
Exhibit 23: Market Share Evolution in Latin America



Source: *Euromonitor*

For the period studied (2015 – 2019), North America registered the slowest GDP growth in 2016, however the economy recovered in 2017 and in 2018 registered a record in economic growth for the period studied, 2.83%. This recovery in growth was mainly due to policies adopted by the US government, such as the cut in corporate and individual taxes and the boost of public construction, building more roads and bridges. In 2019 the economy growth registered a slowdown, with the same value as of 2017.

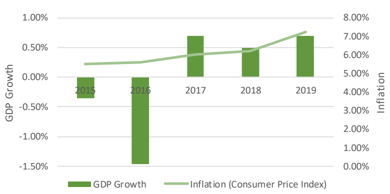
Exhibit 24: North America Real GDP growth and Inflation



Source: *World Bank and Wells Fargo*

After the COVID-19 outbreak the U.S real GDP is expected to grow by 0.5% in 2020 and 1.6% in 2021. Also, inflation (Consumer Price Index) is expected to grow by 1.7% and 1.6% in 2020 and 2021, respectively.

Exhibit 25: South America GDP growth and Inflation



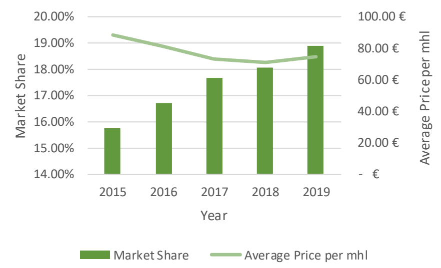
Source: *World Bank*

Latin America, contrariwise, had a recession in the 2015 and 2016 period and the growth after 2017 never grew more than 1%. Most of the economy is composed of Brazil, Argentina and Venezuela that are in recession. Adding up, the COVID-19 will impact these economies through five 5 channels: The decline in the activity of the main trading partners; Lower demand for tourism services; The interruption of global value chains; drop in commodities prices and a greater risk aversion on the part of investors. Because of this, it is expected that by 2020 Latin America economy contracts by 1.8%.

Africa, Middle East and Eastern Europe

Africa, Middle East and Eastern Europe accounts for 12.21% of total beer consumed worldwide. Currently, Heineken operates in 23 countries of the region and owns 17 operating companies in the region. Additionally, Russia is the largest market for the brand Heineken 0.0. In the competitive landscape, Heineken is the 2nd biggest brewer in this market

Exhibit 26: Africa, Middle East and Eastern Europe - Market Share and Average Price per mhl

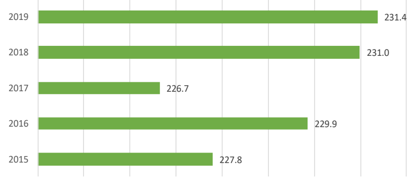


Customer

Africa, Middle East and Eastern Europe is the smallest market and registered a small growth (1.5%) in terms of volume for the period studied (2015 – 2019).

This region can be divided in three sub-regions, each one with its features and different growth rates: Sub-Saharan Africa; Middle East and North Africa; Eastern Europe, whose main market is Russia.

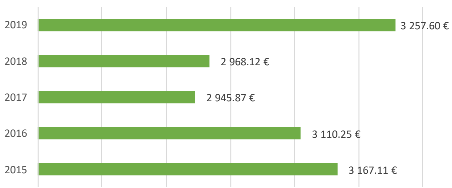
Exhibit 27: Beer Market Volume (in mhl) in Africa, Middle East and Eastern Europe



Source: Kirin Holdings

Sub-Saharan Africa is the most promising beer market worldwide, growing at a CAGR of 5.25% in the 2014 – 2018 period. The biggest markets are South Africa (31.35 mhl), Nigeria (18 mhl) and Ethiopia (14.12 mhl); The Middle East and North Africa market grew at a CAGR of 3% and there is a trend towards low and non-alcohol beers, as well as craft beers which led to an increase of small and independent breweries that sell locally. The Eastern Europe market is influenced mainly by the Russian market, which will be used as a proxy for this market. The Eastern Europe market grew at a CAGR of 0.4% (2014 – 2018 period). When it comes to the buyer power in this market, one can infer that it is high since on-trade outlets, hypermarkets and supermarkets account for 61.2% of beer sales. Additionally, beer is seen more as a commoditized product in this market and it is the price that drives demand.

Exhibit 28: Heineken Revenues in Africa, Middle East and Eastern Europe



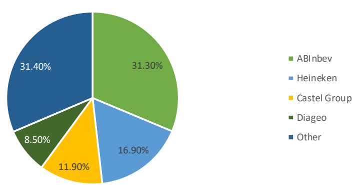
Source: Heineken Reports

Overall, the segment has shown slight growth, however Heineken has been consolidating its position, and consequently increasing its revenues because of a growth in market share accompanied by a decrease in price.

Competition

In the Sub-Saharan segment, most of the markets are oligopolistic, this results in various forms of collusion which reduce competition and leads to higher prices to consumers. On the other hand, all the multinational companies are trying to enter this market, which may increase the levels of competition. A good example of this in the entering of Diageo in the South Africa market in 2017 and the entering of ABInbev in the Middle East and Africa market in 2016.

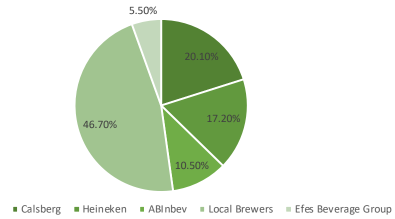
Exhibit 29: Market Share in Middle East and Africa



Source: Euromonitor

The competition landscape in the Middle East and North Africa market is the most difficult to access, however one can deduce that the competition in this market is low due to the fact that in this market most of the countries are Arabic countries where alcohol consumption per capita is low.

Exhibit 30: Market Share in East European beer market



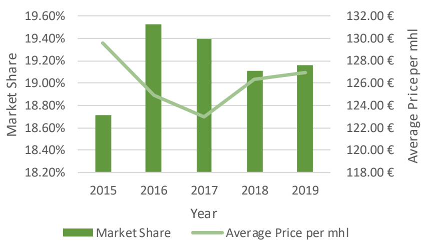
Source: Marketline

East Europe leading players are Calsberg, Heineken and ABInbev with a market share of 20.1%, 17.2% and 10.5%, respectively. The competition in this market is intense being 46.7% of the market held by local brewers. Moreover, continuously regulations have been affecting all the players in this market. One good example of this is the classification of beer as an alcoholic beverage in 2011. The competition in this market can be accessed as strong and the barriers to entry are high, mainly due to the high investments and fixed costs associated with the brewing industry.

Macroeconomic Outlook

According to Heineken annual report of 2019 the macro-environment in this region is challenging. This was mainly due to the political tensions in these regions and the low GDP in the Sub-Saharan Africa. Concerning the GDP growth rates in these regions Sub-Saharan Africa registered the lowest CAGR for the 2015 – 2019 period (0.68%) while East Europe, where Russia is used as a proxy for the state of the economy, registered the highest CAGR for the period, about 5%.

Exhibit 31: Europe - Market Share and Average Price per mhl



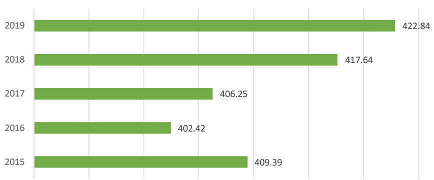
Source: Heineken Report and Kirin Holdings

Europe

The European market accounts for 22.32% of the beer consumed worldwide. Heineken is present in 22 countries, additionally Heineken strategy in this region focuses on premiumization and innovation alongside cost management. Europe has the largest number of Heineken breweries, brewing a wide range of beers to be consumed both locally and globally.

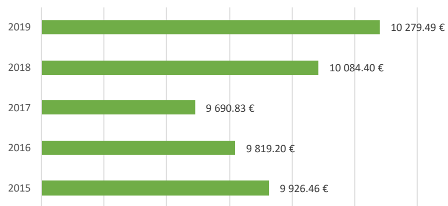
Customer

Exhibit 32: Beer Market Volume in Europe



Source: Kirin Holdings

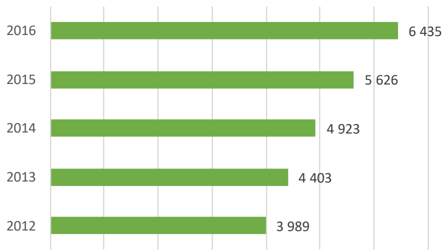
Exhibit 33: Heineken Revenues in Europe



Source: Heineken Report

The European market is the most mature market, registering a CAGR for volume of 0.61% for the 2015-2019 period and the market share held by Heineken registering a CAGR of 0.47%. In the European market, the strategy adopted by Heineken is to focus on premiumisation and innovation and in order to achieve that strategy Heineken is investing in craft breweries. This strategy was adopted mainly due to the growth of craft beer in this region, registering a CAGR of 4.76% in 2012 – 2016 period. By investing in craft beer, companies will be able to charge higher prices that lead to higher margins and consequently a higher ROIC.

Exhibit 34: Craft Beer market value in Europe



Source: Bord Bia

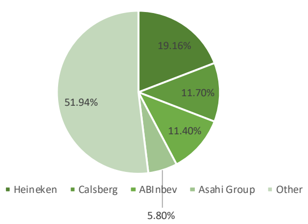
When it comes to customers, on-trade outlets are the major buyers in the beer market, accounting for 61.4% of sales. Additionally, there is high differentiation between products and because of that major buyers need to offer a wide range of beers to accommodate consumer preferences. This undermines buyer power of supermarkets and hypermarkets that also have low likelihood of backward integration.

All in all, buyer power is assessed as low.

Competition

Heineken is the number one company in Europe, with a market share of 19.16% in 2019 and the market is highly fragmented with the top four players holding 48.06% of the market (according to Marketline).

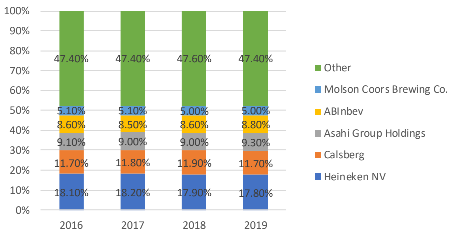
Exhibit 35: Market Share in European beer market



Source: Marketline

Microbreweries are growing since high quality beers can command premium prices. On the other hand, major players have premium brands and compete against smaller players while having higher margins, mainly due to economies of scale. Because of the premiumization of beers which allows companies to have higher margins and the demand for local and craft beer, the threat of new entrants is considered medium-to-high.

Exhibit 36: Market Share Evolution in Europe

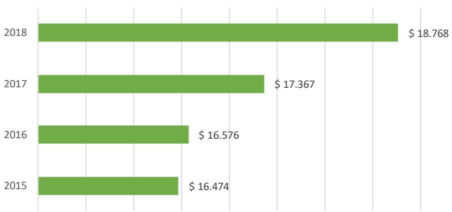


Source: Euromonitor

To sum up, it is possible to say that the degree of rivalry is strong in this market due to the change in consumer preferences and the low growth of this market.

Macroeconomic Outlook

Exhibit 37: European Union GDP



Source: World Bank

For the Macroeconomic Outlook, European Union will be used as a proxy for the European Economy since it represents a significant weight of the European Economy weight. The CAGR of this region for the period studied (2015 – 2018) was 3.31%. The European Union Economy is expected to grow between 1.5% to 1.7% per year in the 2019 – 2024 period, according to the IMF. However, with the COVID-19 economies became stagnant and population remains on lockdown. According to S&P, Europe is expected to contract 0.5% to 1% in 2020. Most of the effects will be noticed in the first half of the year and it is expected a slight recovery of the economy afterwards. European Union countries are already taking policies in order to smooth the effect of the recession: countries do not have restrictions to its budget *deficit;* Financing lines are being created to companies in financial distress; The European Central Bank is injecting money in the economy by buying sovereign debt and ease on the financial ratios demanded to financial institutions. As a consequence it is possible to say that 2020 will be a negative year to the European economy, however, mainly due to the policies undertaken by the European Central Bank and the fiscal policies adopted by the countries affected by COVID-19 it is expected a recovery in the economy by 2021 and the consumption of beer will reach its typical values by this year.

Conclusions

Heineken is mainly responsible for the brewing and packaging of its products, yet in some markets the company adopted a forward integration to the point at which

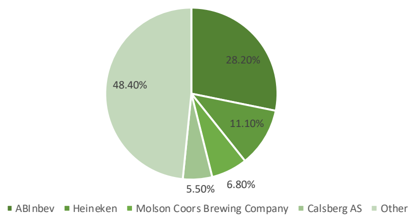
some pubs have been bought by Heineken. With this strategy Heineken is able not only to increase its margins, but also to understand better its consumer needs and provide the best experience to its consumers.

From past observations, one can understand that a decrease in price will lead to a higher demand. The demand price elasticity is -0.51, according to empirical evidence. Furthermore, beer consumption in developed countries is more elastic (-0.6) than in emerging and developing countries (-0.49), implying that beer is in the early stage of the product lifecycle. Presently, there is a trend of decrease in price in Heineken's beer which is leading to a larger market share in every market. On the other hand, from a consumer perspective the trend in taste is towards premium and craft beers, something that Heineken has been expanding into through the opening of new breweries and product launches. Other conclusion that can be drawn is the fact that most of the sales are done through on-trade outlets that have lower bargaining power due to their size. This leads to Heineken pushing beer prices to a higher value and increase its margins.

Moving on to the competitive landscape, the market is mainly composed of 4 companies that hold more than half of the global market. The other half of the market is fragmented, composed of small and local breweries. The importance of economies of scale and distribution channels associated with the difference in size between companies will lead to the consolidation of this market with big companies acquiring small local brewers.

Market volume is expected to decrease by 2020 due to the COVID-19 outbreak. Globally the impact of the COVID-19 in the economy is expected to be conjunctural and afterwards the global economy is expected to reach its normal state and growth rates by the end of 2020 to mid-2021. Additionally, there is no clear pattern between beer consumption and the state of the economy. This is perceivable in South America and Asia Pacific. Since, while in the first market there is a recession and beer volume consumption has been growing in the

Exhibit 38: Market Share in global beer market



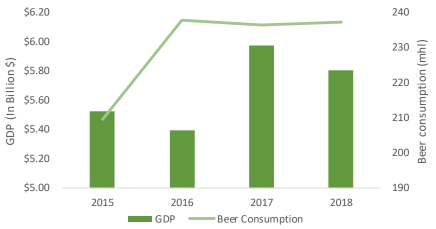
Source: Marketline

Exhibit 39: Demand price elasticities

	Price Elasticity
Developed Countries	-0.6
Developing Countries	-0.49
Global	-0.51

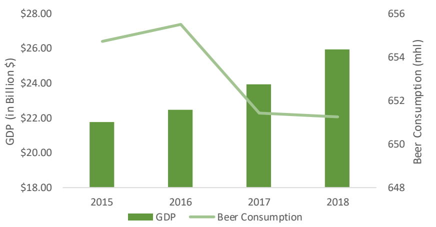
Source: Euromonitor

Exhibit 40: South America - GDP and Beer Consumption



Source: World Bank and Kirin Holdings

Exhibit 41: Asia Pacific - GDP and Beer Consumption



Source: World Bank and Kirin Holdings

second market (Asia Pacific) the economy has been growing significantly, however beer volume consumption has been decreasing.

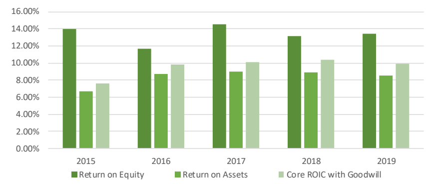
All in all, the brand and geographic diversification allow Heineken to meet a wide range of consumer tastes and Heineken is able to innovate and try new products, the strategy that yields higher ROIC,

Financial Performance

Heineken N.V. has been growing significantly in past years, both organically and through Mergers and Acquisitions. The segment that pushed Heineken's result forward was Americas. Americas became the market with the biggest consolidated beer volume by Heineken and it is the segment that is growing faster. The book value of Heineken N.V. assets rose by 10.33% from 2018 to 2019, reaching a value superior than € 45,000 million. In the next chapters, Heineken N.V. will be evaluated in its return, efficiency and solvency ratios as Business value drivers.

Return

Exhibit 42: Return Ratios



Source: Heineken Report

As it is perceivable in the exhibit 42, the return ratios have been stable in the period studied. The most important Key Performance Indicator of the company is its ROIC. In the case of Heineken, the value has been above the cost of capital, this means that by growing the company is creating value. 2015 was an abnormal year for Heineken, as the company's ROIC was 7.59%. This low result in Heineken's ROIC was a consequence of the low Core Operational Margin (12.99%), however by 2016 the Core Operational Margin increased to 16.48% and the ROIC returned t its regular values of around 10%.

Exhibit 43: Peers Return on Capital (2019)

Companies	Net Margin	Asset Turnover	ROA	ROIC
ABInbev	17.53%	0.22	3.91%	6.89%
Molson Coors Beverage	2.28%	0.36	0.82%	1.90%
Diageo	24.56%	0.42	10.36%	16.32%
Boston Beer Co Inc.	8.80%	1.48	12.99%	16.67%
Asahi Group Holdings	6.81%	0.67	4.57%	6.68%
Carlsberg	9.97%	0.55	5.46%	9.97%
Heineken NV	16.66%	0.82	8.56%	9.93%
Median	9.97%	0.55	5.46%	9.93%
Average	12.37%	0.65	6.67%	9.77%

Source: Morningstar, Analyst Estimates

Heineken's ROIC in 2019 is in line with the industry median and slightly below the average, however when taking a deeper look at the ROIC of other major brewers (and consequently the major Heineken competitors), such as ABInbev, Molson Coors Beverage and Carlsberg, Heineken's ROIC is performing above them. This means that Heineken is allocating its assets in a more efficient way than its competitors and therefore the company has a higher margin to grow and create value with this growth.

Exhibit 44: Heineken's ROIC per region as of 2019

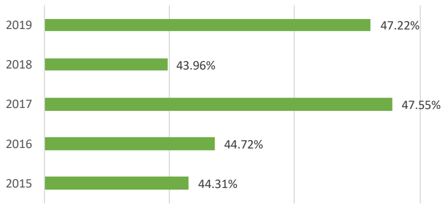
Region	ROIC
Europe	10.11%
America	10.29%
Africa, Middle East, Eastern Europe	16.09%
Asia Pacific	7.44%

Source: Heineken Report

Taking a deeper look at the ROIC per region, one can deduce that in 2019 Heineken was able to create value in every region it operates, and the **Africa, Middle East and Eastern Europe** yielded a ROIC way above the other regions. This translates in a competitive advantage of Heineken that can be attributed to capital efficiency as Heineken records a Core Asset Turnover of 1.43. This can be attributed to the high demand for Heineken's beer in this region and the impact of economies of scale in this region. On the other hand, this can mean that the region has a higher cost of capital and because of that the ROIC of this region is higher than usual, to compensate for the additional risk that is associated with investing in this region.

Solvency

Exhibit 45: Gearing Ratio



Source: Heineken Report

Heineken N.V. has presented a gearing ratio superior than 45%, this translates in a strategy that focuses more on yielding high returns and taking more risks. According with Damodaran Online the optimal Gearing ratio for the alcoholic beverages industry is 25%, so it is possible to say that Heineken N.V. is taking a bold strategy.

Exhibit 46: Peers D/E and Market Cap (2019)

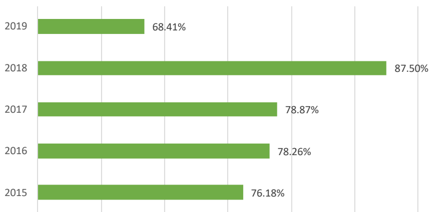
Companies	D/E	Market Cap ($ Billion)
ABInbev	1.29	62.37
Molson Coors Beverage	0.6	7.85
Diageo	1.28	65.97
Boston Beer Co Inc.	0.07	5.89
Asahi Group Holdings	0.43	16.82
Carlsberg	0.48	18.5
Heineken NV	0.99	45.94
Median	0.6	18.5
Average	0.73	31.91

Source: Morningstar, Yahoo Finance, Analyst Estimates

By looking at the peers it is possible to confirm that Heineken is taking a bold strategy in terms of capital structure. It is also possible to imply that the bigger the firm (this is the higher market cap) the higher D/E ratio (book value) of the firm. Furthermore, ROE by 2019 was 13.41% while ROIC was 9.93%. This means that the cost of external financing is lower than the ROIC and by increasing its debt the company is able to create value as well.

Liquidity and Activity

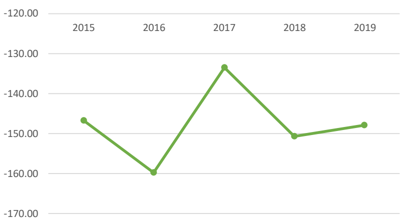
Exhibit 47: Current Ratio



Source: Heineken Report

Analysing the current ratio of Heineken N.V. one can deduce that the company may have cash flow issues because its value is lower than 1. However, If the cash conversion cycle is considered it is perceivable that the company has low pressure on liquidity, in other words, since the cash conversion cycle is negative suppliers are financing the operational activity of the company.

Exhibit 48: Cash Conversion Cycle



Source: Heineken Report

By looking at the cash conversion cycle and current ratio of other firms it is possible to imply that Heineken has the 2nd lowest cash conversion cycle and the 3rd lowest current ratio, hence one can reinforce the idea that Heineken is taking a risky strategy in terms of cash flow management.

All in all, it is possible to say that Heineken N.V. has a low current ratio mainly due to the low pressure on liquidity that arises from its cash conversion cycle. The cash generated by the company is always being used to finance acquisitions and expand operations of the company, one can apply the quote “cash is king” to Heineken’s operations.

Exhibit 49: Current Ratio and Cash Conversion Cycle (2019)

Companies	Current Ratio	Cash Conversion Cycle
ABInbev	0.82	-176.24
Molson Coors Beverage	0.59	-31.7
Diageo	1.34	165.44
Boston Beer Co Inc.	1.21	28.08
Asahi Group Holdings	0.68	1.39
Carlsberg	0.54	-103.7
Heineken NV	0.68	-147.9
Median	0.68	-31.7
Average	0.84	-37.80

Source: Morningstar, Analyst Estimates

Valuation

In order to perform the company valuation, weighted average cost of capital (WACC) based on discounted cash flow (DCF) was used. The main assumptions and computation of the main items are presented below. To complete the valuation a multiples valuation using peer companies was used to evaluate against the value provided by the DCF analysis.

The explicit period considered is 10 years divided in two sub-periods. The first five years (2020 to 2025) are broken-down and forecasted explicitly while in the other 5 years (2025 to 2030) it is expected that Heineken's results will reach a steady state in its accounting lines.

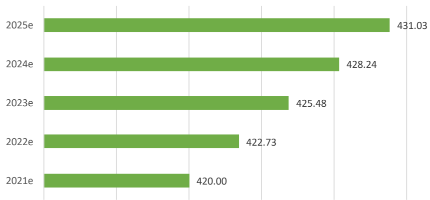
Main Drivers

Revenues

Heineken is aiming to deliver top-line growth in every market. In order to attain this goal, Heineken is changing its product line focusing more in craft beer and entering the Cider market.

Regarding the forecast mechanics, the Heineken's operations were divided by its operating segments: Europe; Americas; Africa, Middle East and Eastern Europe; Asia Pacific. Then, the revenue within each segment was discriminated by its components: Market Volume (in million hectoliters), Market Share and Price per million hectoliters.

Exhibit 50: Predicted beer volume (in mhl) in Europe



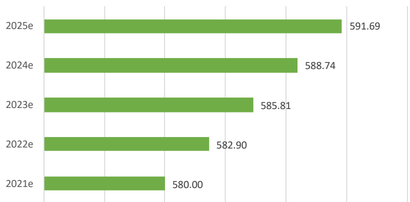
Source: Personal Analysis

Exhibit 51: Heineken's predicted Market Share in Europe

Source: Personal Analysis

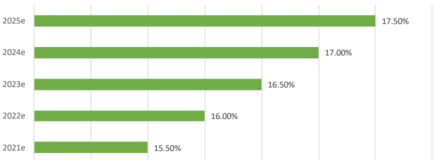
For **Europe** market it is expected a decrease of 1/3 of market volume in 2020 because of the COVID-19, however it is expected that beer consumption will return to its regular values and expected growth by 2021, with a value of 420 million hectoliters and a CAGR of 0.65% in the 2020 to 2025 period. In the second sub-period (2026 – 2030) consolidated beer volume is expected to reach a steady-state and grow at a lower rate. Since this is a consolidated market and the degree of rivalry is high, Heineken's market share is expected to not change significantly and because of that it was assumed to be equal to the average of the last 5 years (2015 – 2019) at 19.30%. The prices are expected to increase at a lower rate than of the expected inflation mainly due to intense competition in this market and the moderate buyer power. Additionally, prices will increase due to the premiumization and the growth of craft beer. For that reason, it was assumed a growth of 2% per year in prices for the 2020 – 2025 period and a 1% growth in prices from 2026 onwards.

Exhibit 52: Predicted beer volume (in mhl) in America



Source: Personal Analysis

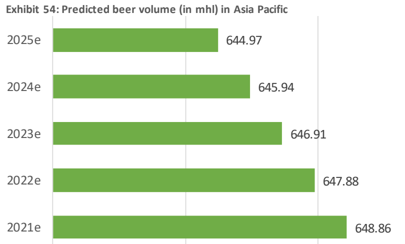
Exhibit 53: Heineken's predicted Market Share in Americas



Source: Personal Analysis

Regarding **Americas**, the North America market remains a challenge and keeps declining. On the other hand, Latin America delivered solid growth and it is an attractive market for the company. Moreover, in North America, most of on-trade outlets are closed due to the COVID-19 outbreak. For 2020 most of the sales will be in retail stores, which leads to lower margins. Also, taprooms are closing, adopting new hygiene procedures (which increases costs) and reducing the laboring hours. It is expected a decrease of 1/4 of market volume in 2020. The market volume is expected to grow at a lower CAGR than the registered previously, mainly due to the recession in South America and the liberalization of recreational cannabis in North America that proves to be a potential substitute for beer. The market volume for the **Americas** market is expected to grow at a CAGR of 0.5% for the 2021 – 2025 period. When it comes to the market share, it is expected a growth of 0.5% of market share per year. This will result in a market share of 17.5% by 2025. The price per million hectoliters in this region has never had a trend in the 2015 – 2019 period, so in order to compute the price one should use the average of last year's price, 84.93.

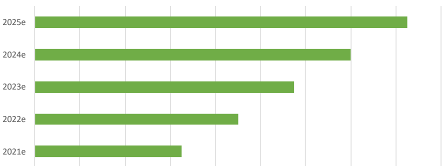
Exhibit 54: Predicted beer volume (in mhl) in Asia Pacific



Source: Personal Analysis

The **Asia Pacific** market is registering a decrease in terms of market volume, decreasing at a CAGR of -0.15% in the 2015 – 2019 period. On the other hand, market share has increased by 1.77% in the same period. One can deduce that Heineken is expanding its operations in Asia Pacific. Moreover, with the transfer of Heineken China Business to China Resources Beer it is expected that Heineken will expand its presence in the Chinese market and therefore expand in the Asia Pacific Market. For the next 5 years it is expected a CAGR equal to the one of the studied periods (2015 – 2019). The market share is expected to increase at 0.25% per year and reach a market share of 6.25% by 2025, mainly due to the expansion policies undertaken in the Chinese market and a decrease in the price of the beer sold by Heineken. The price of beer is expected to grow at -3.94% per year until 2022, when it reaches a steady-state and the price per million hectoliters does not change, mainly due to the growth of the middle-class population in China.

Exhibit 55: Heineken's predicted Market Share in Asia Pacific



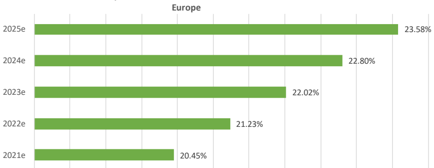
Source: Personal Analysis

Exhibit 56: Predicted beer volume (in mhl) in Africa, Middle East and Eastern Europe

Source: Personal Analysis

Lastly, the **Africa, Middle East and Eastern Europe** market is a very diverse region. The macroeconomic outlook of this segment was acceptable (if it is taken into account the political tensions in the region) registering a CAGR of 3.11% for the 2015 – 2018 period. The market share in this region is expected to grow by 0.78% a year, reaching a value of 23.58% by 2025. This growth in market share is mainly driven by the growth strategy adopted by Heineken in this region. For the forecast period it was assumed that prices will remain steady at €73.06 and market volume for the period started in 2021 until 2025 will be 229.334.

Exhibit 57: Heineken's predicted Market Share in Africa, Middle East and Eastern Europe



Source: Personal Analysis

Exhibit 58: Consolidated Beer Volume and Price	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Europe											
Consolidated Beer Volume (million hl)	77	79	79	80	81	54	81	82	82	83	83
Average Price per mhl	130 €	125 €	123 €	126 €	127 €	129 €	132 €	135 €	137 €	140 €	143 €
Americas											
Consolidated Beer Volume (million hl)	56	59	72	83	86	66	90	93	97	100	104
Average Price per mhl	89 €	86 €	85 €	79 €	85 €	88 €	90 €	93 €	96 €	98 €	98 €
Africa, Middle East and Eastern Europe											
Consolidated Beer Volume (million hl)	36	38	40	42	44	34	47	49	50	52	54
Average Price per mhl	88 €	81 €	73 €	71 €	75 €	73 €	73 €	73 €	73 €	73 €	73 €
Asia Pacific											
Consolidated Beer Volume (million hl)	20	24	27	29	31	18	37	42	47	52	56
Average Price per mhl	122 €	115 €	106 €	98 €	100 €	96 €	92 €	88 €	88 €	88 €	88 €

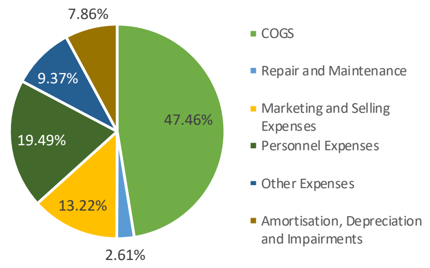
Source: Personal Analysis

Operating Expenses

The operating expenses can be divided in two main groups: COGS (Cost of Goods Sold) and SG&A (Selling, General and Administrative Expenses).

The COGS group is composed of 6 components. 3 components are strictly dependent on the consolidated beer volume produced by Heineken. Those components are **Raw Materials**, **Non-Returnable Packaging** and **Energy and Water**. These values are expected to increase in every region mainly due to the increase of the consolidated beer volume produced by Heineken, while the average cost per mhl of beer produced is expected to be the average (or the moving average in cases where there is an economy of scale) of the last 5 years.

Exhibit 59: Operating Costs Structure 2019



Source: Heineken Report

Then it was computed the Gross Profit of each segment and it was applied an average of the percentage of gross profit in relation to revenues for the 2020 – 2025 to the 2026 – 2030 period.

Exhibit 60: Amortization and Depreciation as % of last year PP&E

Europe	12.89%
Americas	13.95%
Africa, Middle East and Eastern Europe	11.71%
Asia Pacific	12.16%

Source: Heineken Reports

The SG&A group is the one in which economies of scale play an important role. This group is composed of 4 components: Repair and Maintenance; Marketing and Selling Expenses; Personnel Expenses; Other Expenses. The dilution of this cost happens in most years but in 2020 it is expected a growth of SG&A as a % of Revenue due to the COVID-19 impact. For the second period of the valuation (2026 – 2030) SG&A is expected to remain stable as a % of revenues of each region.

Exhibit 61: Top players gross margin

Companies	Gross Margin
ABInbev	61.09%
Molson Coors Beverage	39.71%
Diageo	61.55%
Boston Beer Co Inc.	49.14%
Asahi Group Holdings	37.90%
Carlsberg	49.53%
Heineken NV	60.45%
Median	49.53%
Average	51.34%

Source: Morningstar, Analyst Estimates

Finally, depreciation, amortization and impairments were computed. This cost was computed as a fixed average of the last year's depreciation, amortization and impairments as a % of PP&E for the 2020 – 2030 period.

When comparing Heineken's gross margin (as of 2019) with its competitors one can deduce that they have a gross margin higher than the average of the industry and only behind ABInBev's and Diageo's gross margin. This translates in a higher operational efficiency and opportunity to reduce prices in order to gain market share in the future. Furthermore, it is possible to see that economies of scale pay an important role in this industry, since the bigger the firm the higher its operational margin

Exhibit 62: Heineken Margins	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Europe											
% Gross Profit	60%	60%	59%	59%	59%	60%	61%	61%	62%	62%	63%
SG&A as % of Revenue	42%	42%	40%	40%	39%	48%	39%	38%	38%	37%	37%
Americas											
% Gross Profit	62%	63%	62%	61%	60%	63%	63%	64%	65%	65%	65%
SG&A as % of Revenue	39%	39%	38%	39%	37%	42%	35%	34%	33%	32%	32%
Africa, Middle East and Eastern Europe											
% Gross Profit	61%	60%	59%	59%	58%	58%	58%	58%	58%	58%	58%
SG&A as % of Revenue	40%	42%	40%	40%	39%	45%	39%	39%	40%	39%	39%
Asia Pacific											
% Gross Profit	64%	69%	69%	68%	68%	67%	66%	65%	65%	65%	65%
SG&A as % of Revenue	37%	33%	31%	32%	30%	42%	30%	30%	29%	28%	27%

Source: Heineken Report and Analyst Estimates

Capital Expenditure and Net Working Capital

The capital expenditure of Heineken is divided in "Property, Plant and Equipment" (PP&E) and "Intangible Assets".

PP&E is strictly related with the production capacity and for that reason the revenues of the company were used as a value driver of the PP&E components. PP&E was disaggregated in 5 components for each of the 4 regions: "Land and Buildings", "Plant and Equipment", "Other Fixed Assets", "Right of Use Assets". For 2020 it is expected that PP&E will remain the same in every region yet there will be a growth of € 183 million in Americas due to the expansion in Brazil, where Heineken is building a new brewery that is expected to increase the production capacity by 75%. 2020 will be an exceptional year for Heineken's as it is expected that Heineken will not expand its operations due to the COVID-19 outbreak. Afterwards it is expected PP&E will reach a value slightly higher than the one registered in the 2015 – 2019 period due to the investments that Heineken is planning to do and that may lead to the excess of production of beer in the regions where it operates. For the 2026 onwards period the PP&E is computed based on the past growth rates for the Europe and Americas region. For the Africa, Middle East and Eastern Europe and Asia Pacific regions it was used a fixed PP&E as a % of revenues for the 2026 onwards period.

Exhibit 63: Top Players CAPEX

Companies	Net CAPEX (Dez-2018) (million €)	Net Capex/Sales (2018)
ABInbev	-4679.62	9.63%
Molson Coors Beverage	-580.28	6.05%
Diageo	-519.76	4.80%
Boston Beer Co Inc.	-49.05	5.52%
Asahi Group Holdings	-646.67	4.00%
Carlsberg	-538.41	6.44%
Heineken NV	-1230	5.47%

Source: Yahoo Finance, Invest Ferry

Heineken is the 2nd company in terms of investment by 2018, however the company is below the average of the industry in terms of Net Capex/Sales which turns out to be a good measure as a lower Capex/Sales means that the company is improving its financial position. For the forecasted period it is expected a higher Capex/Sales mainly due to the high levels of investment that the company is doing and that may lead to excess of production.

Concerning the intangible assets, it was assumed a % of revenues in every line and the CAGR of the past 5 years (2015 – 2019) for the contract-based intangibles and Software, R&D and Other

Exhibit 64: Heineken PP&E	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Europe											
PP&E	3 647 €	3 415 €	4 358 €	4 458 €	5 198 €	5 198 €	5 121 €	5 247 €	5 376 €	5 508 €	5 644 €
PP&E as % of Revenue	37%	35%	45%	44%	51%	74%	48%	48%	48%	48%	47%
Americas											
PP&E	2 021 €	1 980 €	2 986 €	3 137 €	3 830 €	4 013 €	3 937 €	4 073 €	4 210 €	4 349 €	4 489 €
PP&E as % of Revenue	40%	39%	49%	48%	53%	71%	52%	51%	51%	51%	51%
Africa, Middle East and Eastern Europe											
PP&E	1 096 €	891 €	888 €	895 €	1 065 €	1 065 €	1 190 €	1 233 €	1 275 €	1 317 €	1 360 €
PP&E as % of Revenue	35%	29%	30%	30%	33%	43%	35%	35%	35%	34%	34%
Asia Pacific											
PP&E	2 788 €	2 946 €	2 885 €	2 869 €	3 176 €	3 176 €	3 387 €	3 402 €	3 540 €	3 678 €	3 816 €
PP&E as % of Revenue	116%	105%	101%	101%	103%	204%	108%	108%	108%	108%	107%

Source: Heineken Reports and Analyst Estimates

Exhibit 65: Heineken CAPEX	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
CAPEX	-109	-3435	-1230	-3785	-1898	-3785	-2603	-2969	-3026	-3102
CAPEX as % of Revenue	0.52%	15.88%	5.47%	15.84%	11.35%	15.21%	10.16%	11.22%	11.08%	11.01%

Source: Heineken Reports and Analyst Estimates

Regarding the Net Working Capital, its components are average collection period, average holding period, average payable period, prepayments, returnable packaging deposits, income tax receivables and current tax liabilities. In the estimation of each line it was assumed that some values would remain the average of last year's line, others would keep the same trend as of the past, or based on assumptions of the business model adopted by Heineken it was assumed an input. The values obtained for the Net Working Capital can be seen in exhibit 30 below.

The Working Capital is expected to increase in terms of % of revenue in Europe while it is expected that in the other regions the Net Working Capital will decrease or remain stable.

Exhibit 66: Heineken NWC

	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Europe											
Working Capital	- 1 571 €	- 1 764 €	- 1 486 €	- 1 627 €	- 1 257 €	- 790 €	- 1 412 €	- 1 402 €	- 1 406 €	- 1 409 €	- 1 408 €
Working Capital as % of Revenue	-16%	-18%	-15%	-16%	-12%	-11%	-13%	-13%	-12%	-12%	-12%
Americas											
Working Capital	214 €	316 €	- 95 €	- 213 €	- 386 €	- 169 €	- 228 €	- 240 €	- 244 €	- 252 €	- 259 €
Working Capital as % of Revenue	4%	6%	-2%	-3%	-5%	-3%	-3%	-3%	-3%	-3%	-3%
Africa, Middle East and Eastern Europe											
Working Capital	- 20 €	0 €	53 €	- 89 €	- 122 €	- 64 €	- 87 €	- 90 €	- 94 €	- 99 €	- 101 €
Working Capital as % of Revenue	-1%	0%	2%	-3%	-4%	-3%	-3%	-3%	-3%	-3%	-3%
Asia Pacific											
Working Capital	153 €	139 €	268 €	248 €	109 €	49 €	82 €	68 €	70 €	73 €	76 €
Working Capital as % of Revenue	6%	5%	9%	9%	4%	3%	3%	2%	2%	2%	2%

Source: Heineken Reports and Analyst Estimates

WACC Assumptions

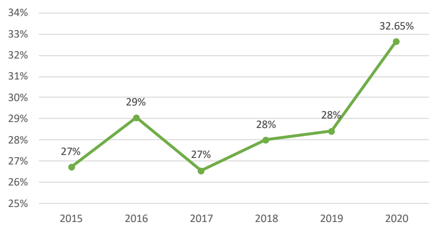
In order to discount the free cash flows to the firms one should use the weighted average cost of capital (WACC). The WACC depends on the relative size of both equity and financial debt in market values and the cost of equity and debt. Based on the computation of those it was reached an overall cost of capital of 4.380%. The table below is a summary of the inputs (that will be explained in next chapters) used in the computation of the WACC. This discount rate was used to discount the cash flows to the valuation date: 31st December 2020.

Exhibit 67: Summary of WACC computation

E/EV	77.78%	Cost of Equity	4.86%	Tax Rate	25%
D/EV	22.22%	Cost of Debt	3.59%		
WACC	4.380%				

Source: Analyst Estimates

Exhibit 68: Historical D/E (Market Value)



Source: Bloomberg and Heineken Report

Capital Structure

The capital structure adopted by Heineken was computed based on debt and equity market values. The capital structure should be the targeted one by the company, yet one can observe that the capital structure has been stable at around 28% of D/E and it was assumed that Heineken will keep its targeted D/E ratio in all of the period studied. So, it was computed the average D/E of last periods and the result for the targeted D/E is 28.57%.

The market value of debt was estimated based on the book value of the net financial assets while the market value of equity was estimated using the market capitalization provided by Bloomberg, being its values between € 44 billion to €54 billion.

Exhibit 69: Top Players D/E (31-Dez-2019)

Companies	D/E
ABInbev	63.14%
Molson Coors Beverage	77.52%
Diageo	11.37%
Boston Beer Co Inc.	1.30%
Asahi Group Holdings	56.38%
Carlsberg	105.06%
Heineken NV	25.83%
Median	56.38%
Average	48.66%

Source: Bloomberg, Yahoo Finance

Concerning the peer's analysis, it is possible to say that Heineken reported a D/E significantly lower than D/E ratio than its biggest competitors. This value can be attributed to the high values of the Market Cap registered by Heineken. From a strategic perspective, Heineken has margin to raise more debt in comparison with its peers.

Cost of Equity

Exhibit 70: Cost of equity inputs

rF	0.00346
Bl	0.7528
MRP	0.0600
rE	4.86%

Source: Bloomberg

The cost of equity was computed under the CAPM (Capital Asset Pricing Model), which has three inputs: Risk-free rate, Levered Beta and MRP (Market Risk Premium). Heineken headquarters are in Amsterdam and the company presents its financials in euros, as a result the riskless rate must be on the same currency. As a proxy for the riskless bond it was used the 30-year German Government Bund as of 31st of December of 2019 as this value translates the yield of the bond in a pre-COVID scenario. The yield of the security was 0.346%.

Regarding the Market-Risk premium it was used the market-risk premium given by the study *Market-Risk-Premium and Risk-Free Rate used for 69 countries in 2019: a survey* and it was chosen the market-risk premium in the Netherlands. The result obtained was 6%. This result is considerably high since the riskless yields have low values affecting positively the equity premium.

Exhibit 72: Peers Unlevered Beta

Companies	Bu
ABInbev	0.56
Molson Coors Beverage	0.55
Diageo	0.61
Boston Beer Co Inc.	0.71
Asahi Group Holdings	0.53
Carlsberg	0.72
Heineken NV	0.62
Median	0.61
Average	0.61

Source: Infront Analytics

Regarding the levered Beta, this was computed through a linear regression from the 1st January 2015 until 20th March 2020 using monthly data. The raw leveraged beta computed was 0.75 with a 95% confidence interval of 0.55 to 0.95. These values will be used further to compute the possible range of the WACC in the sensitivity analysis. Afterwards the Beta was unlevered, and it was compared with its peers. It is possible to see that the unlevered beta of Heineken lies in both average and median values, so the assets held by Heineken are as risky as the average beer company of the industry.

Cost of Debt

Exhibit 73: Cost of debt inputs

Credit Rating (Moody's)	Baa1
Yield Spread	3.24%
Risk Free Rate	0.346%
rD	3.59%

Source: Heineken Institutional Website; Bloomberg

The cost of debt was computed based on the following inputs: credit rating (from Heineken's institutional website), the yield spread based on this credit rating and the risk-free rate where the German 30-year Government Bund was used. The value obtained for the cost of debt was 3.59%. Heineken's credit rating is Baa1 (Moody's), according to Bloomberg a 7-year bond with this rating has an

Exhibit 74: Cost of Debt (Second Method)	
Credit Rating (Moody's)	Baa1
YTM	3.50%
Loss Given Default	53.90%
Probability of Default	1.50%
rD	3.40%

Source: Heineken Institutional Website; Moody's

expected yield spread of 3.24%. Summing the yield with the risk-free, one obtains the value stated above.

In order to confirm the value, it was estimated the cost of debt considering the YTM of an outstanding Heineken Bond with maturity of 12 years and a face value of €500 million. Afterwards, the loss given default weighted by the probability of default was deduced from the YTM. It was assumed that the bond is unsecured and has a rating of Baa1. The value obtained was 3.40% which goes roughly in order with the value obtained in the first method.

RONIC

In order to access if the company is creating value by growing in each region, one should compute the forecasted RONIC of each region.

As it is perceivable in exhibit 75, 2021 will be an exceptional year in terms of RONIC mainly due to the return to normality of the economy. Europe is the region that presents the wider differences in RONIC yet in 2027 it is expected that the RONIC will reach a steady state at around 6.5%, this means that growing in this region generates value to Heineken. Asia Pacific is the only region that has a RONIC lower than the WACC, this means that by growing in this region Heineken is destroying value. For that reason, it is expected a lower growth rate in perpetuity for Heineken in the Asia Pacific region.

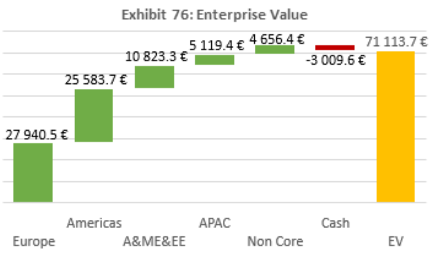
Exhibit 75: Forecasted RONIC per Region	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Europe	242.51%	-39.12%	35.07%	40.04%	41.43%	-28.70%	5.37%	6.72%	6.61%	6.49%
Americas	140.84%	31.92%	21.21%	18.09%	19.61%	9.84%	8.03%	9.33%	9.24%	9.14%
Africa, Middle East and Eastern Europe	310.59%	5.08%	-8.09%	29.72%	33.46%	8.40%	11.46%	16.13%	16.11%	16.10%
Asia Pacific	61.57%	-3.39%	5.48%	3.07%	2.96%	2.11%	2.07%	2.40%	2.41%	2.43%

Source: Analyst Estimates

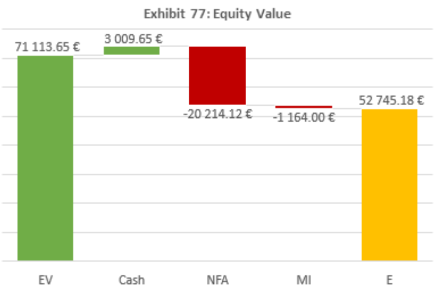
DCF Analysis – Target Price

Based on the previous sections' forecasts, one has the required information to compute the FCFF and discount it by the WACC. The result of this will be the Enterprise Value of Heineken. As it can be seen in the appendix, the cash flows decrease in 2020 due to the COVID-19, however they are expected to reach its average values by 2021 and there is a trend of growth in the free cash flows to the firm. The main driver for this growth in cash flows is the increase in expected sales in every region.

The explicit period of valuation is 10 years, being the first 5 years explicitly computed in every accounting line and for the other 5 years it was assumed that the values would stabilize. After the explicit period and given the fact that it was reached a steady state in the growth of FCFF in every region in the last 3 years it was assumed that this growth rate would be sustained in perpetuity, but in the Asia Pacific because RONIC of the operations is lower than the WACC it was assumed that in perpetuity Heineken would disinvest in this region and because of that the growth rate in perpetuity would be 1.5%. Based on the growth rate (g) in every region, the computed FCFF of 2030 and the WACC it was used a perpetuity function in order to compute the continuing value.



[1] The Enterprise value was computed by summing the discounted free cash-flows to the firm during the 10-year period and the terminal value. This resulted in the value of the core business. To this value it was summed the expected book value of the non-core business (used as a proxy for the market value), and it was subtracted the value of cash and equivalents. The enterprise value achieved for Heineken is € 71,113.7 million.



[2] The goal of the valuation is to reach the share price, which requires computing the equity value as a next step. To go from Enterprise Value to Equity Value one should subtract the debt, minority interests and add back the value of cash.

Cash and Equivalents is expected to increase to €3,009 million by 2020 mainly due to the more liquid position that Heineken must adopt due to the COVID-19 impact. The book value of net financial debt by 2020 is expected to be €20,214 million, which can be used as a proxy for the market value. Finally, minority interests were subtracted and registered a value of €1,164 million. The value of Heinekens' equity obtained was € 52,745.18 million. The number of expected shares outstanding by the end of 2020 is expected to be the same, 576 million. Finally, by dividing the Equity value by the number of shares one gets the target price of €91.57 per share, implying an increase of 19.54% based on the price of the share by 21st of May 2020. The expected shareholders total return is expected to be the same, since it is expected that by 2020 Heineken will not distribute dividends. Driven by this difference in prices it is given a **buy** recommendation of Heineken.

Sensitvity Analysis

The price obtained by the DCF is subject to uncertainty. For that reason, it was performed a sensitivity analysis. The variables that have more impact on the valuation are the growth rate assumed in perpetuity and the discount rate.

Based on the changes of these variables it was performed a sensitivity analysis on the target price of the company. As a result, it was assumed a change of 0.266% on the WACC and 0.1% in the growth in perpetuity. In order to perform the sensitivity analysis, it was computed the price per share with the cash flows of the company as a whole (this is, cash flows were not computed per region).

[1] A&ME&EE: Africa, Middle East and Eastern Europe; APAC: Asia Pacific; EV: Enterprise Value
[2] EV: Enterprise Value; NFA: Net Financial Assets; MI: Minority Interests; E: Equity

Additionally, the range of values for the WACC were based on the possible values that the leveraged beta can have.

Exhibit 78: Sensitivity Analysis

		WACC						
		3.44%	3.751%	4.07%	4.38%	4.69%	5.01%	5.32%
Perpetuity Growth Rate	1.36%	148.63 €	122.73 €	103.09 €	87.74 €	75.45 €	65.43 €	57.11 €
	1.46%	155.76 €	127.77 €	106.79 €	90.54 €	77.61 €	67.13 €	58.47 €
	1.56%	163.66 €	133.28 €	110.79 €	93.53 €	79.91 €	68.92 €	59.90 €
	1.66%	163.66 €	133.28 €	110.79 €	93.53 €	79.91 €	68.92 €	59.90 €
	1.76%	182.27 €	145.96 €	119.83 €	100.21 €	84.98 €	72.85 €	63.00 €
	1.86%	193.3500587	153.304026	124.9696834	103.944169	87.78 €	75.00 €	64.68 €
	1.96%	205.93 €	161.47 €	130.59 €	107.99 €	90.78 €	77.30 €	66.47 €

Source: Analyst Estimates

In the table above one can observe that when valuing the company's cash flows as a whole one gets a fair value of € 93.53 slightly above the value obtained when breaking down the company's operations. By only changing the perpetuity growth rate and keeping the WACC at 4.38%, the price varies between € 87.74 and € 107.99. When changing the cost of capital and assume the perpetuity growth rate at 1.66% the implied price per share changes to a wider range of values (between € 59.9 and € 163.66). From this analysis two conclusions can be drawn: Changes in cost of Capital have a greater impact on share price rather than changes in the perpetuity growth and most of the results given by the sensitivity analysis imply a positive return.

Scenario Analysis

Exhibit 79: Real GDP in 3 different scenarios

Source: Euromonitor

Currently, the main risk for Heineken's business is the disruption caused by the COVID-19 in the economy and the consequent social distancing, which can lead to lower demand for beer which leads to lower consolidated beer volume and consequently lower revenues and lower profits. As businesses shut down and employees are laid off there is a decrease in household incomes and business revenues, ultimately this can transform this health crisis into a long-term financial crisis.

Relying on the opinion article "Global recession expected: Introducing Coronavirus Economic Scenarios" from *Euromonitor*, 3 alternative scenarios were built in order to measure the impact of the economy on Heineken's fair value. The probability assigned to each scenario was based on *Euromonitor* estimates. In the base scenario the recommendation is "BUY" while in the other 3 scenarios the recommendation is "SELL". It should be highlighted that the difference between the scenario *COVID-19 Impact 2* and *COVID-19 Impact 3* is the fact that in the first scenario the crisis will have an equal impact in every region while in the second scenario the crisis impact from the COVID-19 will be different in each region.

Finally, it was computed the price per share based on analyst estimates for the Heineken consolidated beer volume. The target price for the share in this scenario was €89.74 which implies a **"buy"** recommendation.

Exhibit 80: Scenario Analysis

Scenario	Target Share Price	Probability of Scenario	Name of the scenario (Euromonitor)	Notes
Base Case	91.24 €	40%	Baseline/Recession	
COVID-19 Impact 1	67.68 €	30%	Deep Recession	
COVID-19 Impact 2	63.51 €	15%	Crisis	Crisis equal in every region
COVID-19 Impact 3	53.45 €	15%	Crisis	Crisis impact different in each region
Analyst Estimates	89.74 €			
Weighted Target Share Price	74.34 €			

Source: Euromonitor; Analyst Estimates

Relative Valuation

The relative valuation is performed in order to triangulate the results obtained by the DCF with the values obtained by the ratios of comparable firms.

Peer Group

The peer group should comprise companies that have the same cash-flow characteristics, similar margins and similar return ratios.

In order to identify the industry players that are similar to Heineken it was used both *Bloomberg* peer analysis and the companies from *Infront Analytics*. The statistics used for the peer analysis were EBITDA Margin, ROIC and ROA.

By performing this analysis, it was reached the following table of peer companies:

Exhibit 81: Peers Table as of 31/12/2019

	Heineken N.V	AB Inbev	Molson Coors Breweing	Diageo	Boston Beer Company	Asahi Group Holdings	Carlsberg
ROA	**4.8864**	3.8983	5.1765	9.554	17.5942	5.1904	5.4555
ROIC	**10.4948**	8.0122	6.5386	16.0363	27.7136	8.8376	13.9434
EBITDA Margin	**23.3301**	39.6625	22.6351	34.3643	19.3144	13.67	23.1101

Source: Bloomberg

Multiples

Afterwards it was decided which multiples are the best to value Heineken. The ratios were obtained from Bloomberg as of 31st December 2019. The multiples used were EV/EBITDA, P/E, EV/Revenue and Price/Book.

For the valuation ratios it was computed an arithmetic mean and a median of the peer group, then it was multiplied the value by the driver in 2019. The reason why it was chosen 2019 and not 2020 was due to the fact that 2020 will be an abnormal year in the Beer market due to the COVID-19. The values are presented below:

Exhibit 82: Relative Valuation Summary

	Average		Median	
Enterprise Value Multiples	EV (€ millions)	Target Price (€)	EV (€ millions)	Target Price (€)
EV/EBITDA	75 210.42 €	95.48 €	69 160.84 €	84.98 €
EV/Revenue	78 183.30 €	100.64 €	64 764.31 €	77.34 €
Equity Value Multiples	Equity (€ millions)	Target Price (€)	Equity (€ millions)	Target Price (€)
P/E	50 150.28 €	87.07 €	53 988.08 €	93.73 €
P/Book	62 474.41 €	108.46 €	58 376.15 €	101.35 €

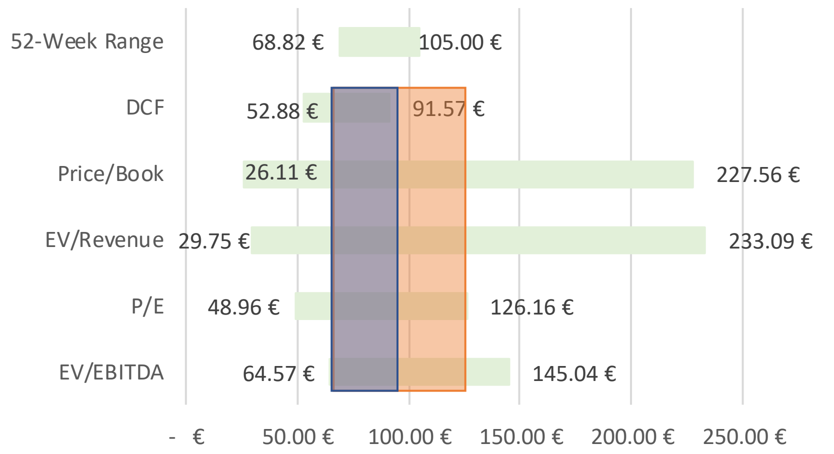
Source: Bloomberg

The main conclusion that can be taken from this table is that the stock is undervalued, since the target price reached by both Average and Median are above the current price of Heineken's stock (76.6€) by 21st of May 2020. The values obtained do not differ much from the multiple that is chosen. In the average section one can notice that the values obtained lie between €87.07 and €108.46, values that include the value computed by the DCF analysis. On the median section the values obtained were lower, lying between €77.34 and €101.35. Again, the values obtained were above the current market value of the stock (76.6€) and they include the value obtained by one of the DCF scenarios in its range (the base case scenario). Finally, one can draw the conclusion that the values in average obtained were above the values obtained in the median analysis because of the outliers that had high values.

By crossing all the results obtained in each methodology it is possible to state that the fair value of the stock will lie between €64.57 and €91.57. If only the multiples were taken into account, the fair value of the stock would be between €64.57 and €126.16.

According to this methodology, Heineken in undervalued and the final recommendation is "**buy**".

Exhibit 83: Football Field Valuation - Price per Share



Source: Analyst Estimates

Appendix

Financial Statements

Income Statement – Core business per region

€ in Millions	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Core													
Europe													
Net Revenue	10084	10279	7042	10702	10987	11279	11580	11888	12043	12200	12359	12520	12683
COGS	-4091	-4209	-2803	-4203	-4267	-4325	-4382	-4434	-4645	-4705	-4766	-4829	-4892
Gross Profit	5993	6071	4239	6499	6720	6954	7197	7454	7398	7495	7592	7691	7791
SG&A	-4055	-3963	-3412	-4132	-4188	-4245	-4304	-4363	-4420	-4477	-4536	-4595	-4655
Repair and Maintenance	-245	-231	-268	-264	-270	-277	-284	-291					
Marketing and Selling Expenses	-1159	-1172	-801	-1194	-1201	-1209	-1217	-1225					
Personnel Expenses	-1742	-1728	-1739	-1756	-1774	-1791	-1809	-1827					
Other Expenses	-910	-831	-604	-918	-943	-968	-993	-1020					
EBITDA (beia)	1938	2108	827	2367	2531	2709	2894	3091	2978	3017	3057	3096	3137
Amortisation, Depreciation and Impairments	-471	-613	-670	-670	-660	-676	-693	-710	-728	-745	-764	-783	-802
EBIT(beia)	1467	1495	157	1696	1871	2032	2201	2381	2251	2272	2293	2314	2335
Adjusted Taxes	-378	-407	-42	-450	-496	-539	-583	-631	-597	-602	-608	-613	-619
NOPLAT	1089	1088	115	1247	1375	1494	1617	1750	1654	1670	1685	1700	1716
Americas													
Net Revenue	6597	7259	5640	7635	7921	8209	8500	8794	9058	9330	9610	9898	10195
COGS	-2600	-2885	-2160	-2922	-3042	-3146	-3261	-3374	-3475	-3579	-3687	-3797	-3911
Gross Profit	3997	4373	3480	4713	4879	5064	5240	5420	5583	5750	5923	6101	6284
SG&A	-2577	-2717	-2457	-2834	-2896	-2958	-3020	-3083	-3176	-3271	-3369	-3470	-3574
Repair and Maintenance	-156	-158	-202	-198	-205	-212	-219	-226					
Marketing and Selling Expenses	-736	-804	-620	-839	-870	-902	-934	-966					
Personnel Expenses	-1107	-1185	-1179	-1179	-1179	-1179	-1179	-1179					
Other Expenses	-578	-570	-457	-619	-642	-665	-689	-713					
EBITDA (beia)	1420	1657	1023	1879	1983	2106	2220	2337	2407	2480	2554	2631	2709
Amortisation, Depreciation and Impairments	-331	-452	-534	-560	-549	-568	-587	-607	-626	-651	-677	-704	-732
EBIT(beia)	1089	1205	489	1319	1434	1538	1633	1731	1781	1828	1877	1926	1977
Adjusted Taxes	-281	-328	-130	-350	-380	-408	-433	-459	-472	-485	-498	-511	-524
NOPLAT	808	877	359	970	1054	1130	1200	1272	1309	1344	1379	1416	1453
Africa, Middle East and Eastern Europe													
Net Revenue	2968	3258	2494	3427	3558	3689	3820	3951	4030	4111	4193	4277	4362
COGS	-1209	-1354	-1042	-1429	-1483	-1539	-1596	-1649	-1681	-1715	-1749	-1784	-1820
Gross Profit	1759	1904	1452	1998	2075	2150	2224	2302	2349	2395	2443	2492	2542
SG&A	-1198	-1275	-1130	-1334	-1381	-1461	-1493	-1525	-1556	-1587	-1619	-1651	-1684
Repair and Maintenance	-72	-74	-75	-83	-86	-89	-92	-95					
Marketing and Selling Expenses	-342	-377	-290	-408	-438	-505	-523	-541					
Personnel Expenses	-515	-556	-552	-550	-553	-551	-551	-552					
Other Expenses	-269	-267	-213	-293	-304	-315	-326	-338					
EBITDA (beia)	561	629	322	664	694	689	731	777	793	809	825	841	858
Amortisation, Depreciation and Impairments	-94	-126	-125	-125	-139	-144	-149	-154	-159	-162	-166	-169	-172
EBIT(beia)	467	503	198	540	555	545	582	623	634	646	659	672	686
Adjusted Taxes	-120	-137	-52	-143	-147	-144	-154	-165	-168	-171	-175	-178	-182
NOPLAT	346	366	145	397	408	400	428	458	466	475	485	494	504
Asia Pacific													
Net Revenue	2840	3096	1554	3129	3144	3282	3420	3557	3699	3847	4001	4161	4328
COGS	-906	-1001	-506	-1055	-1091	-1141	-1188	-1236	-1286	-1337	-1391	-1446	-1504
Gross Profit	1934	2095	1048	2075	2053	2141	2232	2321	2414	2510	2611	2715	2824
SG&A	-898	-943	-696	-968	-984	-1010	-1035	-1062	-1104	-1148	-1194	-1242	-1292
Repair and Maintenance	-54	-55	-58	-62	-62	-64	-67	-70					
Marketing and Selling Expenses	-257	-279	-146	-307	-321	-335	-349	-363					
Personnel Expenses	-386	-411	-384	-384	-384	-384	-384	-384					
Other Expenses	-201	-198	-107	-216	-217	-226	-236	-245					
EBITDA (beia)	1036	1152	352	1107	1069	1132	1196	1259	1310	1362	1416	1473	1532
Amortisation, Depreciation and Impairments	-303	-375	-386	-386	-412	-414	-430	-447	-464	-483	-502	-522	-543
EBIT(beia)	733	778	-34	720	657	718	766	812	846	879	914	951	989
Adjusted Taxes	-189	-212	9	-191	-174	-190	-203	-215	-224	-233	-242	-252	-262
NOPLAT	544	566	-25	529	483	528	563	597	621	646	672	699	727
Total Core Results	**2788**	**2897**	**595**	**3142**	**3320**	**3552**	**3807**	**4076**	**4050**	**4134**	**4221**	**4309**	**4400**

Income Statement – Global

€ in Millions	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Core													
Net Revenue	22489	23892	16730	24893	25610	26460	27320	28190	28830	29487	30162	30856	31568
COGS	-8806	-9449	-6511	-9608	-9883	-10151	-10428	-10693	-11087	-11337	-11593	-11856	-12127
Gross Profit	13683	14443	10219	15284	15727	16309	16892	17497	17743	18151	18569	18999	19441
SG&A	-8728	-8897	-7695	-9268	-9449	-9673	-9851	-10033	-10255	-10483	-10718	-10958	-11205
Repair and Maintenance	-527	-519	-602	-607	-624	-642	-661	-681	0	0	0	0	0
Marketing and Selling Expenses	-2494	-2632	-1857	-2747	-2830	-2951	-3022	-3095	0	0	0	0	0
Personnel Expenses	-3749	-3880	-3854	-3869	-3889	-3906	-3924	-3942	0	0	0	0	0
Other Expenses	-1958	-1866	-1381	-2045	-2105	-2174	-2244	-2315	0	0	0	0	0
EBITDA (beia)	4955	5546	2524	6016	6278	6636	7041	7464	7488	7667	7852	8041	8236
Amortisation, Depreciation and Impairments	-1199	-1565	-1715	-1741	-1760	-1802	-1860	-1918	-1977	-2041	-2108	-2178	-2249
EBIT(beia)	3756	3981	809	4276	4518	4833	5181	5546	5511	5626	5743	5864	5987
Adjusted Taxes	-969	-1084	-214	-1134	-1198	-1281	-1373	-1470	-1461	-1491	-1523	-1554	-1587
NOPLAT	2788	2897	595	3142	3320	3552	3807	4076	4050	4134	4221	4309	4400
Non Core													
Other Income	53	40	91	93	95	98	101	104	107	111	115	118	122
Share of profit of associates and joint ventures and impairments thereof (net of income tax)	210	164	372	372	387	398	412	425	439	449	459	469	480
EBIT (beia)	263	204	463	464	482	496	513	529	546	559	573	588	602
Exceptional Items	-377	-79	0	0	0	0	0	0	0	0	0	0	0
Amortisation of acquisition-related intangibles recorded in operating profit	-311	-309	0	0	0	0	0	0	0	0	0	0	0
EBIT	-425	-184	463	464	482	496	513	529	546	559	573	588	602
Interest Income	71	75	43	68	71	77	79	82	84	86	88	90	93
Other net finance income/expenses	-64	-59	-207	-171	-141	-117	-96	-80	-72	-65	-58	-52	-47
EBT	-418	-168	299	361	412	456	496	531	558	581	603	626	648
Adjusted Taxes	105	42	-75	-90	-103	-114	-124	-133	-140	-145	-151	-156	-162
Other Comprehensive Income	-51	186	-337	-337	-337	-337	-337	-337	-337	-337	-337	-337	-337
Non Core Result	-365	60	-113	-66	-28	5	34	61	82	99	115	132	149
Financial													
Interest Expense	-492	-529	-608	-625	-647	-672	-700	-732	-750	-769	-789	-810	-832
Tax Shield	123	132	152	156	162	168	175	183	187	192	197	202	208
Financial Result	-369	-397	-456	-469	-485	-504	-525	-549	-562	-577	-592	-607	-624
Total Comprehensive Income	2054	2560	26	2607	2807	3053	3317	3588	3569	3656	3744	3834	3925

Balance Sheet – Core Business per region

€ in Millions	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Europe													
Working Capital	-1627	-1257	-790	-1412	-1402	-1406	-1409	-1408	-1385	-1403	-1421	-1440	-1459
PP&E Net	4458	5198	5198	5121	5247	5376	5508	5644	5782	5925	6070	6220	6372
(Net) Intagible Assets	6852	6961	6961	7357	7565	7756	7953	8157	8277	8385	8495	8605	8717
Advances to customers	113	87	87	110	113	116	119	122	124	126	127	129	131
Loans to Customers	20	22	22	33	34	35	35	36	37	37	38	38	39
Long-Term Prepayments	183	172	172	168	171	173	175	177	186	188	191	193	196
Provisions	-484	-421	-421	-476	-489	-502	-515	-529	-536	-543	-550	-557	-564
Core Business Invested Capital	9516	10763	11229	10901	11238	11547	11867	12199	12486	12715	12949	13188	13432
Americas													
Working Capital	-213	-386	-169	-228	-240	-244	-252	-259	-136	-140	-144	-148	-153
PP&E Net	3137	3830	4013	3937	4073	4210	4349	4489	4669	4855	5050	5252	5462
(Net) Intagible Assets	4821	5129	5161	5575	5821	6080	6326	6582	6700	6901	7108	7321	7541
Advances to customers	80	64	56	76	79	82	85	88	91	93	96	99	102
Loans to Customers	14	16	14	19	20	21	21	22	23	23	24	25	25
Long-Term Prepayments	129	127	95	129	134	138	143	148	153	157	162	167	172
Provisions	-261	-262	-186	-252	-261	-271	-281	-290	-299	-308	-317	-327	-336
Core Business Invested Capital	7707	8519	8984	9256	9625	10016	10393	10780	11200	11582	11978	12388	12812
Africa, Middle East and Eastern Europe													
Operating Cash	30	33	25	34	36	37	38	40					
Working Capital	-89	-122	-64	-87	-90	-94	-99	-101	-89	-93	-96	-99	-103
PP&E Net	895	1065	1065	1190	1233	1275	1317	1360	1387	1415	1443	1472	1501
(Net) Intagible Assets	1376	1426	1426	1566	1620	1676	1732	1788	1832	1868	1906	1944	1983
Advances to customers	23	18	15	22	25	28	29	30	30	31	31	32	33
Loans to Customers	4	4	4	5	7	7	8	8	8	8	8	9	9
Long-Term Prepayments	37	35	28	39	40	41	43	44	46	46	47	48	49
Provisions	-141	-151	-116	-160	-165	-172	-178	-184	-188	-191	-195	-199	-203
Core Business Invested Capital	2105	2275	2359	2579	2673	2765	2855	2948	3029	3088	3149	3210	3273
Asia Pacific													
Working Capital	248	109	49	82	68	70	73	76	79	82	86	89	93
PP&E Net	2869	3176	3176	3387	3402	3540	3678	3816	3969	4127	4292	4464	4643
(Net) Intagible Assets	4410	4253	4253	5186	5212	5434	5659	5885	6126	6371	6626	6891	7166
Advances to customers	73	53	39	78	71	66	68	71	74	77	80	83	87
Loans to Customers	13	13	7	16	16	20	21	21	22	23	24	25	26
Long-Term Prepayments	118	105	53	105	109	108	113	117	122	127	132	137	143
Provisions	-111	-107	-54	-110	-110	-115	-120	-124	-129	-135	-140	-146	-151
Core Business Invested Capital	7620	7603	7535	8745	8767	9124	9493	9862	10263	10673	11100	11544	12006

Balance Sheet – Global

€ in Millions	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Core													
Operating Cash	239	254	175	265	272	281	290	300	0	0	0	0	0
Trade and Other receivables	3413	3738	2728	3936	4050	4189	4329	4470	0	0	0	0	0
Inventories	1920	2213	1588	2248	2317	2387	2459	2528	0	0	0	0	0
Prepayments	382	385	286	428	441	454	468	481	0	0	0	0	0
Trade and Other Payables	-6891	-7520	-5248	-7775	-7997	-8215	-8439	-8654	0	0	0	0	0
Returnable packaging deposits	-569	-565	-389	-578	-574	-591	-609	-626	0	0	0	0	0
Income Tax Receivables	71	123	78	116	119	124	128	132	0	0	0	0	0
Current Tax Liabilities	-245	-283	-192	-285	-294	-303	-313	-323	0	0	0	0	0
Working Capital	-1680	-1655	-975	-1646	-1664	-1674	-1687	-1692	-1531	-1553	-1576	-1598	-1621
PP&E Net	11359	13269	13452	13635	13954	14401	14853	15308	15806	16322	16855	17407	17978
Land and Buildings	4800	5051	5234	5274	5408	5594	5782	5972	0	0	0	0	0
Plant and Equipment	3756	4174	4174	4300	4407	4560	4715	4872	0	0	0	0	0
Other Fixed Assets	1805	1928	1928	1943	1993	2062	2131	2201	0	0	0	0	0
Under Construction	998	1077	1077	1080	1107	1146	1185	1224	0	0	0	0	0
Right of use assets	0	1039	1039	1039	1039	1039	1039	1039	0	0	0	0	0
(Net) Intagible Assets	17459	17769	17801	19684	20218	20946	21671	22411	22935	23525	24134	24761	25407
(Net) Goodwill	11194	11465	11465	12733	13047	13501	13960	14424	0	0	0	0	0
(Net) Brands	3910	3953	3953	4421	4530	4688	4848	5008	0	0	0	0	0
(Net) Customer-related intangibles	1212	1131	1131	1203	1235	1296	1338	1381	0	0	0	0	0
(Net) Contract-Based intangibles	741	736	736	711	688	675	663	653	0	0	0	0	0
(Net)Software, R&D and other	402	484	516	619	721	789	865	949	0	0	0	0	0
Advances to customers	289	222	197	287	288	292	301	311	319	327	335	343	352
Loans to Customers	52	55	46	73	76	82	85	88	90	92	94	97	99
Long-Term Prepayments	466	439	348	442	453	461	475	488	506	519	532	546	560
Provisions	-997	-940	-777	-998	-1026	-1059	-1093	-1127	-1152	-1177	-1202	-1228	-1255
Core Business Invested Capital	26948	29159	30108	31480	32303	33452	34608	35790	36977	38059	39176	40331	41523
Non Core													
Investments in associates and Joint Ventures	2021	4868	4868	5072	5218	5391	5566	5744	5874	6008	6146	6287	6432
Deferred Tax Assets	626	647	647	706	745	797	855	915	909	928	948	968	988
Available-for-sale Investments	501	408	523	530	543	560	578	595	615	635	655	677	699
Non-Current Derivatives	35	2	2	2	2	2	2	2	3	3	3	3	3
Loans to joint-ventures and associates	9	38	32	34	35	36	37	38	39	40	41	42	43
Held-to-maturity investments	0	0											
Other Receivables	209	368	258	383	394	408	421	434	444	454	465	475	486
Other Investments	0	0											
Derivative Assets	35	28	29	30	31	32	33	34	36	37	38	39	40
Assets Classified as Held for Sale	401	111	177	179	183	189	195	201	208	214	221	229	236
Deferred Tax Liabilities	-1431	-1422	-377	-1992	-2104	-2251	-2413	-2583	-2567	-2620	-2675	-2731	-2789
Other non-current liabilities	-168	-153	-165	-173	-177	-184	-190	-196	-203	-209	-215	-221	-228
Derivative Liabilities	-70	-69	-58	-60	-62	-64	-66	-68	-71	-73	-75	-77	-79
Liabilities associated with assets classified as held for sale	-132	0	-52	-53	-54	-55	-57	-59	-61	-63	-65	-67	-69
Tax Liabilities	0	0											
Post-Retirement Obligations	-954	-1189	-1228	-1228	-1228	-1228	-1228	-1228	-1228	-1228	-1228	-1228	-1228
Non Core Business Invested Capital	1082	3637	4656	3431	3526	3633	3733	3829	3997	4125	4258	4393	4533
Financial													
Excess Cash	2664	1567	2787	4774	6244	7650	9332	11264	12653	14271	15932	17637	19384
Loans and Borrowings	-14331	-15918	-17680	-18691	-19761	-20891	-22086	-23349	-24050	-24771	-25514	-26280	-27068
Bank overdrafts and commercial papers	-655	-1134	-2534	-2093	-1729	-1428	-1179	-974	-877	-789	-710	-639	-575
Net Financial Assets	-12322	-15485	-17427	-16011	-15245	-14669	-13934	-13059	-12273	-11289	-10292	-9282	-8259
Total Equity	15708	17311	17337	18901	20585	22417	24407	26560	28702	30895	33142	35442	37797

Cash Flow Statement

€ in Millions	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Core													
Europe													
NOPLAT	1089	1088	115	1247	1375	1494	1617	1750	1654	1670	1685	1700	1716
Depreciation	471	613	670	670	660	676	693	710	728	745	764	783	802
Operational Cash Flow	1559	1701	785	1917	2035	2170	2310	2460	2382	2415	2449	2483	2518
Invested Capital (Fixed Assets and Intangibles)	11310	12160	12160	12478	12812	13132	13461	13800	14060	14310	14565	14825	15090
Gross Capex Investment	-27	-849	0	-318	-334	-320	-329	-339	-260	-250	-255	-260	-265
Net Capex	-497	-1462	-670	-988	-994	-996	-1022	-1049	-987	-996	-1019	-1043	-1067
Invested Capital (NWC and Others)	-1795	-1397	-930	-1577	-1574	-1585	-1595	-1601	-1574	-1595	-1615	-1636	-1658
Investment in NWC and Others	-22	-398	-467	647	-3	11	10	6	-27	21	21	21	21
Investment Cash Flow	-519	-1860	-1137	-342	-998	-985	-1012	-1043	-1014	-975	-998	-1021	-1046
FCF	1041	-159	-351	1575	1038	1185	1298	1417	1368	1440	1451	1462	1472
Americas													
NOPLAT	808	877	359	970	1054	1130	1200	1272	1309	1344	1379	1416	1453
Depreciation	331	452	534	560	549	568	587	607	626	651	677	704	732
Operational Cash Flow	1139	1329	893	1529	1603	1698	1787	1878	1935	1995	2056	2120	2185
Invested Capital (Fixed Assets and Intangibles)	7958	8959	9142	9472	9845	10234	10611	10997	11307	11693	12092	12505	12933
Gross Capex Investment	-226	-1002	-183	-330	-373	-389	-377	-386	-310	-386	-399	-413	-428
Net Capex	-557	-1454	-717	-890	-922	-957	-964	-992	-936	-1037	-1076	-1117	-1160
Invested Capital (NWC and Others)	-250	-441	-190	-256	-269	-273	-283	-291	-169	-174	-179	-184	-190
Investment in NWC and Others	30	190	-250	66	12	5	9	8	-122	5	5	5	6
Investment Cash Flow	-527	-1263	-968	-823	-910	-952	-955	-984	-1058	-1032	-1071	-1112	-1155
FCF	612	65	-74	706	693	746	832	894	877	963	985	1008	1031
Africa, Middle East and Eastern Europe													
NOPLAT	346	366	145	397	408	400	428	458	466	475	485	494	504
Depreciation	94	126	125	125	139	144	149	154	159	162	166	169	172
Operational Cash Flow	441	492	270	521	547	545	577	612	625	637	650	663	676
Invested Capital (Fixed Assets and Intangibles)	2271	2490	2490	2757	2853	2951	3049	3147	3219	3283	3349	3416	3484
Gross Capex Investment	28	-219	0	-266	-96	-98	-98	-98	-71	-64	-66	-67	-68
Net Capex	-66	-345	-125	-391	-236	-242	-247	-252	-230	-227	-231	-236	-241
Invested Capital (NWC and Others)	-166	-215	-134	-180	-184	-190	-197	-203	-193	-198	-204	-210	-215
Investment in NWC and Others	138	49	-81	46	3	6	8	6	-10	5	5	6	6
Investment Cash Flow	72	-296	-206	-345	-232	-236	-240	-247	-240	-221	-226	-230	-235
FCF	513	196	64	177	315	308	337	365	384	416	424	433	441
Asia Pacific													
NOPLAT	544	566	-25	529	483	528	563	597	621	646	672	699	727
Depreciation	303	375	386	386	412	414	430	447	464	483	502	522	543
Operational Cash Flow	847	941	361	916	895	941	993	1044	1085	1129	1174	1221	1270
Invested Capital (Fixed Assets and Intangibles)	7279	7429	7429	8559	8598	8958	9319	9680	10075	10478	10897	11333	11787
Gross Capex Investment	193	-150	0	-1130	-39	-360	-362	-361	-395	-403	-419	-436	-453
Net Capex	-110	-524	-386	-1516	-451	-773	-792	-809	-859	-886	-921	-958	-996
Invested Capital (NWC and Others)	341	174	93	172	154	149	155	162	168	175	182	189	197
Investment in NWC and Others	-8	167	81	-78	18	5	-6	-6	-6	-7	-7	-7	-8
Investment Cash Flow	-118	-357	-306	-1595	-433	-769	-798	-815	-865	-892	-928	-965	-1004
FCF	729	583	56	-679	462	173	195	229	220	236	246	256	266
Core Business Free Cash Flow	2895	685	-306	1778	2508	2412	2662	2906	2850	3056	3106	3158	3210
Operational Cash Flow	3987	4462	2310	4883	5080	5354	5667	5994	6027	6176	6329	6487	6649
Investment Cash Flow	-1092	-3776	-2616	-3105	-2573	-2942	-3006	-3089	-3178	-3120	-3223	-3329	-3439
Non Core Business													
Non Core Result	-365	60	-113	-66	-28	5	34	61	82	99	115	132	149
Operational Cash Flow	-365	60	-113	-66	-28	5	34	61	82	99	115	132	149
Invested Capital	1082	3637	4656	3431	3527	3634	3733	3830	3998	4126	4258	4394	4534
Investment Cash Flow	-450	-2555	-1019	1225	-96	-107	-99	-96	-168	-128	-132	-136	-140
Non Core FCF	-815	-2495	-1132	1159	-124	-102	-65	-35	-87	-30	-17	-4	9
Changes in accounting Policy	157	3											
Unlevered Free Cash Flow	2237	-1807	-1438	2937	2384	2310	2597	2870	2763	3026	3089	3154	3219
Financial													
Financial Results	-369	-397	-456	-469	-485	-504	-525	-549	-562	-577	-592	-607	-624
Net Financial Assets	-12322	-15485	-17380	-15954	-15178	-14593	-13848	-12962	-12189	-11202	-10202	-9189	-8164
Change in Net Financial Assets	-844	3163	1894	-1425	-776	-585	-745	-886	-773	-986	-1000	-1013	-1026
Net Transactions with Shareholders	-1024	-960	0	-1043	-1123	-1221	-1327	-1435	-1428	-1462	-1498	-1534	-1570
Financial Cash Flow	-2237	1807	1438	-2937	-2384	-2310	-2597	-2870	-2763	-3026	-3089	-3154	-3219

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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